Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 26.04.95 Test oil : ISO 4113

Combination No. : 0 400 074 896

Injection pump

Pump designation : PES4M55C32ORS110 EP type number : 0 410 054 956

Governor

Governer design. : RSF375/2200M21 Governer no. : 0 420 021 148

Cust. part No.

Customer-spec. information Customer : MB-NFZ

Motor : 0M616 2.41 ADA

Power KW : 55.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 012

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.65 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 37.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : + 1.5

Spreed

Tolerance

cm3/1000 strokes : 2.5

Check tolerance

cm3/1000s. : 3.0

Rated speed rpm : 375

Rack travel in mm : 6.20 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 7.5

Tolerance

cm3/1000 strokes : +- 0.5

Spreed

Tolerance

cm3/1000 strokes : 1.0

(B) SETTING OF INJECTION PUMP WITH GOVERNOR IDLE STAGE Rack travel in mm: 6.00 Tolerance mm : + 0.10FULL LOAD DELIVERY AT FULL LOAD STOP 1000 Rated speed rpm : Ref. pressure 1100 ALDA / ADA hPa Del. quantity cm3/1000 strokes : 37.5 Tolerance cm3/1000 strokes : +- 0.5 Check tolerance cm3/1000s. 1.5 Spreed Tolerance 2.5 cm3/1000 strokes : Check tolerance 3.0 cm3/1000s. RATED SPEED control lever position degree 50.0 8,40 rack travel mm 2350 Rated speed rpm 0.50 rack travel mm +- 0.50 Tolerance mm 2950 Rated speed rpm SET IDLE CONTROL LEVER POSITION Rated speed rpm 1000 1.45 CRT mm max. : LOW IDLE control lever 10.0 position dearee ALDA / ADA hPa tolerance degree : +-2.0 rack travel mm Setting point w/out bumper spring Tolerance mm Rated speed rpm : 375 6.20 rack travel mm Rated speed rpm

SET IDLE AUXILIARY SPRING Rated speed rpm 450 rack travel mm 5.20 Tolerance mm : + - 0.102.00 rack travel mm Rated speed rpm 780 Tolerance 1/min 50 Load pick-up 250 Rated speed rpm CRT mm min. : > 10.00Rated speed rpm 1000 1.45 CRT mm max. : rack travel mm 6.20 Rated speed rpm 375 TORQUE CONTROL Rated speed rpm 1000 rack travel mm 12.65 Tolerance mm : +- 0.051700 Rated speed rpm 12.30 rack travel mm : + 0.10Tolerance mm 2150 Rated speed rpm rack travel mm 11.90 : **←** 0.10 Tolerance mm ADJUSTMENT TEST ADA/ALDA SETTING Rated speed rpm 1000 Ref. pressure 950 ALDA / ADA hPa rack travel mm -0.10Tolerance mm : + 0.10**MEASUREMENT** Rated speed rom 1000 Ref. pressure 900

-0.60

: + - 0.10

1000

Ref. pressure ALDA / ADA hPa	: 750	
rack travel mm Tolerance mm	: -2.00 : ← 0.20	STARTING FUEL DELIVERY
	‡	Rated speed rpm : 100 rack travel mm : 20.10
FUEL DELIVERY CHA	RACTERISTICS	Del. quantity cm3/1000 strokes : 52.0 Spreed
Ref. pressure ALDA / ADA hPa	: 1100	Tolerance cm3/1000 strokes : 6.0
Rated speed rpm Del. quantity cm3/1000 strokes	: 1700 : 38.3	Check tolerance cm3/1000s. : 6.0
Tolerance cm3/1000 strokes	: +- 0.8	
Check tolerance cm3/1000S. Spreed	: +- 1.8	LOW IDLE
Tolerance cm3/1000 strokes	: 2.5	Del. quantity cm3/1000 strokes : 8.3
Check tolerance cm3/1000s.	: 3.0	Check tolerance cm3/1000s. : +- 1.8 Spreed
Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed	: 1100 : 2150	Check tolerance cm3/1000s. : 1.5
Del. quantity cm3/1000 strokes Tolerance	: 38.3	
cm3/1000 strokes Check tolerance	: + 1.0	Grad : > 49.00
cm3/1000s. Spreed	: +- 2.0	Grad : < 46.50
Tolerance cm3/1000 strokes Check tolerance	: 2.5	SETTING PNEUMATIC FAST IDLE (ELA)
cm3/1000s.	: 3.0	control lever position degree : 10.0 tolerance degree : +- 2.0
HIGH IDLE	+	
Rated speed rpm rack travel mm Tolerance mm	: 2350 : 8.40 : + 0.20	SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	+	<pre>control lever position degree : 10.0 tolerance degree : +- 2.0</pre>
Check tolerance cm3/1000s. Spreed Tolerance	: +- 3.0	control lever position degree : 50.0
cm3/1000 strokes Check tolerance	+	ADJUSTMENT
cm3/1000s.	: 3.0	control lever position degree : 50.0

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 375

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 31,05,90 : ISO 4113

Combination No. : 0 400 836 016

Injection pump

Pump designation : PES6A85D410/3RS2415

EP type number : 0 410 886 915

Governor

Governer design. : RQV750AB1004L

Governer no. : 0 420 212 093

Cust. part No. :

Customer-spec. information

Customer : KHD

Motor

: BF6L913

Power KW

: 42.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

40

Tolerance °C

: +---2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing

: 0-60-120-180-240

: -300

Tolerance

: +- 0.50

Check

tolerance $^{\circ}NW$: +- 0.75

BASIC SETTING

Del. quantity

cm3/1000 strokes : 12.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

: +-5.0

cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 2.5

Check tolerance

cm3/1000s.

4.5

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE TRAVEL

Rated speed rpm

: 752

quide sleeve travel mm

3.33

Tolerance mm

: +- 0.25

Rated speed rpm : 530

auide sleeve

travel mm

: -6.91

Tolerance mm	: +- 0.25	+	
Dakada a adam		Rated speed rpm	: 739
Rated speed rpm guide sleeve		rack travel mm	: 11.00
travel mm	: 17.51	Rated speed rpm	: 780
Tolerance mm	: ← 0.25	+ Tolerance 1/min	: 5
Rated speed rpm	: 825	rack travel mm	: 4.00
		rack travel mm	: 0.50
travel mm	: 10.00	† Tolerance mm	: + 0.50
guide sleeve travel mm Tolerance mm	: +- 0.25	Rated speed rpm	. 7/.0
Rated speed rpm		rack travel mm	: 11.00
		+	
guide steeve travel mm	: 11.50	Rated speed rpm	: 781
Tolerance mm	: +- 0.50	Tolerance 1/min rack travel mm	: ← 5 : 4.00
		· +	
GUIDE SLEEVE POST	ITION	rack travel mm Tolerance mm	: 0.50
Rated speed rpm	: 800	1 lolerance mm	: + 0.50
Marea speed i pili	. 000	Rated speed rpm	: 741
		rack travel mm	: 741 : 11.00
FULL LOAD DELIVER	RY AT FULL LOAD STOP	† Rated speed rpm	: 792
Rated speed rpm	: 720	Tolerance 1/min	: + 5
Aneroid pressure		rack travel mm	
hPa	: -	+	. 0.50
		rack travel mm Tolerance mm	
		+	
CONTROL LEVER		+ Rated speed rpm + rack travel mm	: 742
control lever		rack travel mm	: 11.00
position degree	: 87.0	+ Rated speed rpm	
tolerance degree	: ← 4.0	+ Tolerance 1/min	
		rack travel mm	: 4.00
ASSEMBLY GOVERNOR	R SETTING	+ rack travel mm	
		† Tolerance mm	: +- 0.50
Rated speed rpm rack travel mm		<u>†</u>	
rack travet limit	. 17.00	Ī	
Rated speed rpm	: 778	+	
Tolerance 1/min		START CUT-OUT	
rack travel mm	: 4.00	T START COT-OUT	
rack travel mm	: 0.50	Rated speed rpm	
Tolerance mm	: +- 0.50	Rated speed rpm	: < 660
Rated speed rpm	: 798	‡ Check	
Rated speed rpm	: 738	speed 1/min	: > 80
rack travel mm		+	
Rated speed rpm	: 779	FUEL DELIVERY CHA	RACTERISTICS
Tolerance 1/min	: +- 5	+	
rack travel mm	: 4.00	+ Aneroid pressure	
rack travel mm	: 0.50	+ hPa + Rated speed rpm	750
Tolerance mm	: + 0.50	- Adda opecu i piii	

Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	:	36.0 1.0	
Check tolerance cm3/1000S. Spreed	: +-	3.5	
Tolerance cm3/1000 strokes	:	3.0	
Check tolerance cm3/1000s.	:	5.0	
STARTING FUEL DELIVERY			
Rated speed rpm rack travel mm	:	100 20.25	

- 0.75

130.0

5.0

8.0

LOW IDLE

Tolerance mm
Del. quantity
cm3/1000 strokes

cm3/1000 strokes Check tolerance cm3/1000s.

Tolerance

Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. 4.5

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End of test specification sheet

A07

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 30.10.92 : ISO 4113

Combination No. : 0 400 846 549

Injection pump

Pump designation : PES6A95D41ORS2471 EP type number : 0 410 896 952

Governor

Governer design. : RQV300...1250AB1089

: -2L

Governer no.

: 0 420 212 190

Cust, part No.

Customer-spec. information

Customer

: KHD

Motor

: BF6L913C

Power KW

: 141.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve

: 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

173.5

Tolerance bar

Test lines

: 1 680 750 014

Outside diameter :

6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Firing order

: 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance

: + 0.50

Check

tolerance "NW

: + 0.75

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.65

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 102.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +-3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s.

6.0

Rated speed rpm :

300

Rack travel in mm :

7.30

Tolerance mm : +- 0.10

Del. quantity cm3/1000 strokes : 13.0 Tolerance	Tolerance cm3/1000 strokes : 3.5 Check tolerance
cm3/1000 strokes : +- 3.0 Check tolerance	cm3/1000s. : 6.0
cm3/1000s. : + 5.5	
Tolerance + cm3/1000 strokes : 3.5 +	CONTROL LEVER
Check tolerance cm3/1000s. : 5.5	control lever position degree : 122.0 tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	RATED SPEED
WITH GOVERNOR	rack travel mm : 10.60
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1295 Tolerance 1/min : +- 5
Rated speed rpm : 300 + guide sleeve + travel mm : 1.35 +	rack travel mm : 4.00 Rated speed rpm : 1360 Tolerance 1/min : +- 15
travel mm : 1.35 Tolerance mm : + 0.05	Tolerance 1/min : +- 15 rack travel mm : 0.50
Rated speed rpm : 1290 + guide sleeve + travel mm : 8.45	Tolerance mm : + 0.50 Rated speed rpm : 1500
Tolerance mm : + 0.05	
Rated speed rpm : 650 guide sleeve	LOW IDLE
travel mm : 3.80 + Tolerance mm : + 0.10 +	control lever position degree : 73.0
Rated speed rpm : 1200 + guide sleeve + 7.00	tolerance degree : + 4.0
travel mm : 7.00 + Tolerance mm : +- 0.10	Testing: Rated speed rpm : 300
GUIDE SLEEVE POSITION	rack travel mm : 7.30 Tolerance mm : + 0.10
Rated speed rpm : 1290	Rated speed rpm : 100
Rack travel in mm: 16.50 Tolerance mm: + 1.30	CRT mm min. :> 9.00
Total area area area area area area area ar	Rated speed rpm : 418
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
Rated speed rpm : 1250 Aneroid pressure	Rated speed rpm : 1250
hPa : ~ † Del. quantity cm3/1000 strokes : 102.0 +	rack travel mm : 11.65 Tolerance mm : +- 0.05
Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 500 rack travel mm : 11.70 Tolerance mm : +- 0.10
Check tolerance cm3/1000s. : + 3.0	Tolerance mm : +- 0.10
Spreed +	Rated speed rpm : 850

: 11.65 : +- 0.10	
	<u></u>
:> 100	
. \ 220	
. > 00	
: > 00	
: < 240	
RACTERISTICS	- <u></u>
; -	
: 850	
. 07.0	
. 71.0	
: +- 1.5	
: +- 4.0	
IVERY	
: 100	
: 100 : 16.00	
: 16.00 : + 0.20	
: 16.00 : + 0.20 : 127.0	
: 16.00 : + 0.20	
: 16.00 : + 0.20 : 127.0	
: 16.00 : + 0.20 : 127.0 : + 5.0	
: 16.00 : + 0.20 : 127.0 : + 5.0	
: 16.00 : + 0.20 : 127.0 : + 5.0 : + 8.0	
: 16.00 : + 0.20 : 127.0 : + 5.0 : + 8.0	
: 16.00 : + 0.20 : 127.0 : + 5.0 : + 8.0	
	: > 100 : < 220 : > 80 : < 240 RACTERISTICS : - : 850 : 97.0 : + 1.5 : + 4.0

Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 5.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 31.05.95 : ISO 4113

Combination No. : 0 402 746 954A

Injection pump

Pump designation : PES6P120A720RS7301

EP type number : 0 412 726 900

Governor

Governer design. : RQV300...1050PA1090K

Governer no. : 0 421 815 362

Cust. part No. : 9275449

Customer-spec. information Customer : LIEBHERR

Motor

: D 926 TI

Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance *C

2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 115 Tolerance l/h : + 10.0

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

: 208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.75 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance

: +- 0.30

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 14.35

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 240.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0	+ guide sleeve + travel mm : 3.66 + Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 1320 guide sleeve travel mm : 13.50
Check tolerance cm3/1000s. : 9.0	Tolerance mm : +- 0.50
Rated speed rpm : 350	GUIDE SLEEVE POSITION
Rack travel in mm : 6.10 Tolerance mm : + 0.20 Del. quantity	Rated speed rpm : 1170 Rack travel in mm : 13.00
cm3/1000 strokes : 25.0	Tolerance mm : +- 1.30
cm3/1000 strokes : +- 3.0 Check tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. : +- 6.0 Spreed	Rated speed rpm : 1050
Tolerance cm3/1000 strokes : 6.0	Aneroid pressure hPa : 1600
Check tolerance : 10.0	Del. quantity cm3/1000 strokes : 240.0
(B) SETTING OF INJECTION PUMP	Tolerance cm3/1000 strokes : + 1.0 Check tolerance
WITH GOVERNOR	- cm3/1000s. : + 4.0 - Spreed - Tolerance
GUIDE SLEEVE TRAVEL	- roterance - cm3/1000 strokes : 5.0 - Check tolerance
Rated speed rpm : 300 - guide sleeve -	cm3/1000s. : 9.0
travel mm : 1.69 - Tolerance mm : + 0.15 -	
Rated speed rpm : 1117	CONTROL LEVER
guide sleeve - travel mm : 10.38 - Tolerance mm : +- 0.20 -	control lever position degree : 121.0 tolerance degree : +- 4.0
Rated speed rpm : 746 - guide sleeve -	RATED SPEED
travel mm : 6.20 - Tolerance mm : + 0.25 -	rack travel mm : 13.35 Rated speed rpm : 1080 Tolerance 1/min : +- 5
Rated speed rpm : 353 - guide sleeve -	rack travel mm : 4.00
travel mm : 2.45 - Tolerance mm : + 0.25 -	Rated speed rpm : 1180 Tolerance 1/min : +- 15
Rated speed rpm : 403 - guide sleeve	rack travel mm : 0.50 Tolerance mm : +- 0.50
travel mm : 3.18 Tolerance mm : +- 0.25	Rated speed rpm : 1300
Rated speed rpm : 450	LOW IDLE

control lever position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm	: + 4.0 : 350 : 6.10 : + 0.10	Rated speed rpm : 1050 rack travel mm : 11.90 Tolerance mm : + 0.10 Rated speed rpm : 1050 Pressure hPa : 800 rack travel mm : 13.75 Tolerance mm : + 0.05 Pressure hPa : 650 rack travel mm : 12.95 Tolerance mm : + 0.10
CRT mm min.	: > 9.10	START CUT-OUT
Reted speed rpm	: 475	Rated speed rpm : > 100 Rated speed rpm : < 270
TORQUE CONTROL		Check
Rated speed rpm		+ speed 1/min : > 80
rack travel mm Tolerance mm	: ← 0.05	Check speed 1/min : < 290
Rated speed rpm rack travel mm Tolerance mm	: 950 : 13.85 : + 0.10	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm rack travel mm Tolerance mm	: 900 : 13.70	Aneroid pressure hPa : 1600 Rated speed rpm : 800 Del. quantity
Rated speed rpm rack travel mm Tolerance mm	: 13.35	+ cm3/1000 strokes : 219.0 + Tolerance + cm3/1000 strokes : + 3.0 + Check tolerance
Rated speed rpm	: 600	cm3/1000s. : + 6.0 Aneroid pressure
Tolerance mm		hPa : 1600 Rated speed rpm : 500
Rated speed rpm rack travel mm Tolerance mm	: 500 : 12.85 : +- 0.10	Del. quantity cm3/1000 strokes : 204.0 Tolerance
		cm3/1000 strokes : + 3.0 Check tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		cm3/1000s. : +- 6.0
SETTING		Aneroid pressure hPa : - Rated speed rpm : 600 Del. quantity
Rated speed rpm Pressure hPa	: 1050 : 1400	cm3/1000 strokes : 185.0 Tolerance
rack travel mm Tolerance mm	: 14.35 : ← 0.05	cm3/1000 strokes : +- 1.0 + Check tolerance
MEASUREMENT		cm3/1000s. : +- 4.0 Spreed
Pressure hPa	: -	Tolerance cm3/1000 strokes : 8.0

Check tolerance cm3/1000s. 12.0 **BREAKAWAY** Rack travel in mm : 13.35 Rated speed rpm : 1080 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 12.85 rack travel mm : Tolerance mm : +- 0.20 Del. quantity cm3/1000 strokes : 155.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 14.0 LOW IDLE Rated speed rpm 350 rack travel mm 6.10 Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 25.0 Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 12.09.95

Test oil

: ISO 4113

Combination No. : 0 400 864 088

Injection pump

Pump designation : PES4A85D410/3RS2799

EP type number : 0 410 884 944

Governor

Governer design. : RSV325...1250A2C2253

: -2L

Governer no.

: 0 420 232 556

Cust. part No.

Customer-spec. information

Customer

: KHD

Motor

: BF4L913

Power KW

: 78.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C

Tolerance *C

2.0

Overflow valve

: 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

1.5

Test lines

*: 1 680 750 014

Outside diameter :

6.0

A15

x inside diameter: 2.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 26.0

Tolerance bar : + 1.0

Prestroke mm 2.50

Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.75

Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes :

84.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

Tolerance

cm3/1000 strokes :

3.0

Check tolerance

cm3/1000s.

7.0

Rated speed rpm :

325

Rack travel in mm: 7.70 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 15.0 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes: 4.5 Check tolerance cm3/1000s. : 7.0	rack travel mm : 10.70 Rated speed rpm : 1295 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1375 Tolerance 1/min : + 15 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1525 rack travel mm : 4.00 Rated speed rpm : 1415
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
+	
İ	control lever
GUIDE SLEEVE POSITION +	position degree : 73.0
Date de annual a	tolerance degree : +- 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50	occerns point wode bumper opining
Tolerance mm : + 0.20	Rated speed rpm : 325
governor spring	rack travel mm : 7.20
pre-tension +	Testing:
click setting x : 4.50	
+	Rated speed rpm : 325_
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 7.70 Tolerance mm : +- 0.10
FOLE LOAD DELIVER! AT FOLE LOAD STOP	rocerance man . +- U. 10
Rated speed rpm : 1250	rack travel mm : 2.00
Aneroid pressure	Rated speed rpm : 580 Tolerance 1/min : +- 30
hPa : 1000 +	Tolerance 1/min : +- 30
cm3/1000 strokes : 84.5	Rated speed rpm : 100
Tolerance	40.50
cm3/1000 strokes : + 0.5	CRT mm min. : > 19.50
Check tolerance cm3/1000s. : + 2.5	
Spreed 7	TORQUE CONTROL
Tolerance + cm3/1000 strokes : 3.0 +	Rated speed rpm : 1250
Check tolerance	rack travel mm : 11.75
cm3/1000s. : 7.0	rack travel mm : 11.75 Tolerance mm : +- 0.05
†	Datad sinced sum . 500
	Rated speed rpm : 500 rack travel mm : 12.15 Tolerance mm : +- 0.05
CONTROL LEVER	Tolerance mm : +- 0.05
+	
control lever	Rated speed rpm : 800
position degree : 102.0 + tolerance degree : +- 4.0 +	rack travel mm : 12.00 Tolerance mm : + 0.10
1000, 41,000, 400, 400, 400, 400, 400, 4	V - C - WV 1W
RATED SPEED	
+	

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 Pressure hPa 1000 rack travel mm 12.15 Tolerance mm 0.05

MEASUREMENT

Pressure hPa 500 Rated speed rpm rack travel mm 10.85 Tolerance mm 0.05

500 Rated speed rpm

230 Pressure hPa rack travel mm 11.50 : + 0.10Tolerance mm

Pressure hPa 300 11.85 rack travel mm : +- 0.05 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

520 hPa: 800 Rated speed rpm Del. quantity cm3/1000 strokes :

81.0

Tolerance

cm3/1000 strokes 1.5

Check tolerance

cm3/1000s. 3.5

Aneroid pressure

hPa 500 Rated speed rpm Del. quantity

cm3/1000 strokes :

59.0

Tolerance

cm3/1000 strokes

Check tolerance

3.5 cm3/1000s.

BREAKAWAY

Rack travel in mm: 10.70 Rated speed rpm Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 17.80 rack travel mm : + - 0.20Tolerance mm Del. quantity cm3/1000 strokes : 125.0 Tolerance cm3/1000 strokes 7.5 Check tolerance cm3/1000s. : + 10.0

LOW IDLE

Rated speed rpm 325 rack travel mm 7.70 Tolerance mm 0.10 Del. quantity cm3/1000 strokes 15.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes 4.5 Check tolerance 7.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 11.09.95 : ISO 4113

Combination No. : 0 400 866 080

Injection pump

Pump designation : PES6A85D410/3RS2415

EP type number

: 0 410 886 915

Governor

Governer design. : RSV325...1400A8c809L

Governer no. : 0 420 232 610

Cust. part No. : 0423 1249 KY 0150

: -17

Customer-spec. information

Customer Motor

: KHD : BF6L913

Power KW

: 118.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance *C

2.0

Overflow valve : 1 419 992 198

Inlet press. bar :

1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

: +- 1.5

Tolerance bar

Test Lines : 1 680 750 014

Outside diameter :

6.0

x inside diameter: x length mm :

2.0 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : + 1.0

1.95 Prestroke mm

Tolerance mm : +- 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50

: +- 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 10.85

Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes :

76.5

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance

cm3/1000s.

2.5

Spreed

Tolerance

cm3/1000 strokes :

3.0

Check tolerance cm3/1000s.

7.0

1	
Rated speed rpm : 325	rack travel mm : 9.80
Tated speed (pin 1 323	Rated speed rpm : 1445
Rack travel in mm: 8.00	Tolerance 1/min : +- 5
Tolerance mm : + 0.10 +	
Del. quantity	rack travel mm : 4.00
cm3/1000 strokes : 12.5	Rated speed rpm : 1485
Tolerance +	Tolerance 1/min : +- 15
cm3/1000 strokes : + 2.0 +	
Check tolerance	rack travel mm : 0.85
cm3/1000s. : +- 4.0 +	Tolerance mm : +- 0.55
Spreed	Rated speed rpm : 1600
Tolerance +	mode though my / 00
cm3/1000 strokes : 4.5	rack travel mm : 4.00
Check tolerance + cm3/1000s. : 7.0 +	Rated speed rpm : 1520
cm3/1000s. : 7.0	
I	
(B) SETTING OF INJECTION PUMP	LOW IDLE
WITH GOVERNOR	
+	
1	control lever
	position degree : 68.0
GUIDE SLEEVE POSITION +	
+	Setting point w/out bumper spring
Rated speed rpm : 800 +	
1	Rated speed rpm : 325
Rack travel in mm: 0.50	rack travel mm : 7.50
Tolerance mm : + 0.20 +	Tooting
governon enning	Testing:
governor spring + pre-tension +	Rated speed rpm : 325
click setting x : 5.25	rack travel mm * 8.00
teres secting x . Sies	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP +	rack travel mm : 2.00
+	Rated speed rpm : 630
Rated speed rpm : 1400 +	Tolerance 1/min : +- 30
Aneroid pressure +	
hPa : 700 +	Rated speed rpm : 100
Del. quantity +	
cm3/1000 strokes : 76.5	CRT mm min. :> 19.50
Tolerance +	
cm3/1000 strokes : + 0.5	TOROUT CONTROL
Check tolerance + 2.5 +	TORQUE CONTROL
Spreed +	Rated speed rpm : 1400
Tolerance +	rack travel mm : 10.85
cm3/1000 strokes : 3.0	rack travel mm : 10.85 Tolerance mm : +- 0.05
Check tolerance	TO COT GIVES THE
cm3/1000s. : 7.0	Rated speed rpm : 500
1	rack travel mm : 12.05
1	rack travel mm : 12.05 Tolerance mm : + 0.05
+	
CONTROL LEVER	Rated speed rpm : 1040_
+	rack travel mm : 11.50
control lever	Tolerance mm : + 0.10
position degree : 119.0 +	
+	

RATED SPEED

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 700
rack travel mm : 12.05
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 10.25
Tolerance mm : +- 0.05

Rated speed rpm : 500

Pressure hPa : 95 rack travel mm : 10.70 Tolerance mm : +- 0.10

Pressure hPa : 360 rack travel mm : 11.75 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 45.5
Tolerance
cm3/1000 strokes : + 0.5

Check tolerance cm3/1000s. : +- 2.5

BREAKAWAY

Rack travel in mm: 9.80
Rated speed rpm: 1445
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.20 Tolerance mm : + 0.20

Del. quantity cm3/1000 strokes : 110.0

Tolerance

cm3/1000 strokes : +-Check tolerance

cm3/1000s. : \leftarrow 10.0

LOW IDLE

Rated speed rpm : 325
rack travel mm : 8.00
Tolerance mm : + 0.10

Del. quantity cm3/1000 strokes : 12.5

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance cm3/1000s.

cm3/1000s. : +- 4.0

Spreed Tolerance

cm3/1000 strokes : 4.5

Check tolerance cm3/1000s.

: 7.0

7.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 08.09.95 : ISO 4113

Combination No. : 0 400 866 221

Injection pump

Pump designation : PES6A95D410/3RS2876

EP type number : 0 410 896 886

Governor

Governer design. : RSV325...900A7C720L

Governer no. : 0 420 232 339

Cust. part No.

: 0 423 1366 KY0150

: -17

Customer-spec. information

: KHD Customer

Motor

: BF6L913C

Fower KW : 102.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve

: 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

: +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 2.65 Tolerance mm : + 0.05

Check

tolerance mm

: + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.50

Check

: **←** 0.75 tolerance °NW

BASIC SETTING

Rated speed rpm

900

Rack travel in mm : 13.10 : + 0.05Tolerance mm

Del. quantity

cm3/1000 strokes :

92.0

Tolerance

cm3/1000 strokes : +-

Check tolerance

1.0

cm3/1000s.

: +-3.0

Spreed

Tolerance cm3/1000 strokes : 3.5	control lever position degree : 99.0
Check tolerance cm3/1000s. : 8.0	tolerance degree : +- 4.0
Rated speed rpm : 325	RATED SPEED
Rack travel in mm : 6.80 Tolerance mm : + 0.10	rack travel mm : 12.10 Rated speed rpm : 945 Tolerance 1/min : + 5
Del. quantity cm3/1000 strokes : 12.0	rack travel mm : 4.00
Tolerance cm3/1000 strokes : + 2.0	Rated speed rpm : 965 Tolerance 1/min : +- 15
Check tolerance cm3/1000s. : +- 4.5 Spreed	+ rack travel mm : 0.85 + Tolerance mm : + 0.55
Tolerance cm3/1000 strokes : 5.5	Rated speed rpm : 1100
Check tolerance cm3/1000s. : 9.0	+ rack travel mm : 4.00 + Rated speed rpm : 985
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	control lever position degree : 66.0
Rated speed rpm : 800	tolerance degree : + 4.0
Rack travel in mm : 0.50	Setting point w/out bumper spring
Tolerance mm : +- 0.20	Rated speed rpm : 325 rack travel mm : 6.30
governor spring pre-tension click setting x : 4.00	† Testing:
	Rated speed rpm : 325 rack travel mm : 6.80
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
Rated speed rpm : 900 Aneroid pressure hPa : -	+ rack travel mm : 2.00 + Rated speed rpm : 400 + Tolerance 1/min : + 30
Del. quantity cm3/1000 strokes : 92.0	+
Tolerance cm3/1000 strokes : +- 1.0	+ TORQUE CONTROL
Check tolerance cm3/1000s. : + 3.0 Spreed	+ Rated speed rpm : 900 + rack travel mm : 13.10 + Tolerance mm : + 0.05
Tolerance cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm : 600 + rack travel mm : 13.15
cm3/1000s. : 8.0	Tolerance mm : +- 0.05
	‡

CONTROL LEVER

BREAKAWAY

Rack travel in mm: 12.10
Rated speed rpm: 945
Tolerance 1/min: 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 13.70 Tolerance mm : - 0.20 Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : + 7.5 Check tolerance cm3/1000s. : + 10.0

LOW IDLE

Rated speed rpm 325 rack travel mm 6.80 Tolerance rm 0.10 Del. quantity cm3/1000 strokes 12.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions.

See microcard(s) W400/...

: 06,09,95 Edition Test oil : ISO 4113

Combination No. : 0 402 046 789

Injection pump

Pump designation : PES6P120A320RS3139

EP type number : 0 412 026 718

Governor

Governer design. : RQV275...1000PA728

: -3

Governer no. : 0 421 813 657

Cust. part No. : CCEP 5070 -116

Customer-spec. information

Customer : RVI

: MIDR 062045 H Motor

Power KW : 227.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 2 417 413 071

2.5 Inlet press. bar :

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0 x inside diameter: 3.0 x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 3.55 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.30

Check

tolerance °NW : + - 0.50

Start of delivery mark

Barrel no.

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 11.15

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 197.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. : +--4.0

4	
Spreed	rack travel mm : -1.00
Tolerance	Rated speed rpm : 1080
cm3/1000 strokes : 5.0	Tolerance 1/min : +- 5
Check tolerance	rack travel mm : -7.15
cm3/1000s. : 9.0	Rated speed rpm : 1195
Del. quantity +	Tolerance 1/min : + 15
cm3/1000 strokes : 27.0	rack travel mm : -10.65
Tolerance	Tolerance mm : +- 0.50
cm3/1000 strokes : +- 2.0	Rated speed rpm : 1300
Check tolerance	
cm3/1000s. : \leftarrow 5.0 $+$	•
Spreed	
Tolerance	LOW IDLE
cm3/1000 strokes : 8.0 + Check tolerance	
cm3/1000s. : 12.0	control lever
11137 (0000).	position degree : 67.0
1	tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR +	Testing:
+	
†	Rated speed rpm : 275
GUIDE SLEEVE POSITION	rack travel mm : -5.30 Tolerance mm : +- 0.15
dolbe sceeve rostition	toterance inii . — 0.15
Rated speed rpm : 1170	Rated speed rpm : 200
+	·
Rack travel in mm: 16.50	CRT mm max. : < -3.80
Tolerance mm : + 1.30	Data dama dama a 270
<u> </u>	Rated speed rpm : 370
FULL LOAD DELIVERY AT FULL LOAD STOP	
TOTAL BOYOU GERTAIN THE TOTAL BOYOU	TORQUE CONTROL
Rated speed rpm : 1000	
Aneroid pressure +	Rated speed rpm : 600
hPa : 1000 +	
Del. quantity	
cm3/1000 strokes : 197.0	ANEROID/ALTITUDE
Tolerance + 1.0 +	COMPENSATOR TEST
Check tolerance	
cm3/1000s. : +- 4.0 +	SETTING
Spreed	· · · · · · · · · · · · · · · · · · ·
Tolerance +	Rated speed rpm : 500
cm3/1000 strokes : 5.0 +	Pressure hPa : 1000
Check tolerance	SAM A OLIO MAAMATT
cm3/1000s. : 9.0	MEASUREMENT
Ī	Pressure hPa : -
	Rated speed rpm : 500
CONTROL LEVER	rack travel mm : -2.20
+	Tolerance mm : +- 0.20
control lever	Data 1 1 200
position degree : 119.0 +	Rated speed rpm : 500
tolerance degree : +- 4.0 +	Pressure hPa : 160
RATED SPEED	rack travel mm : -1.70
KAIEU SPEEU +	I developed in 1.70

Tolerance mm	: + 0.10
Pressure hPa	: 280
rack travel mm	: -0.75
Tolerance mm	: +- 0.05
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 195
Check speed 1/min	: > 80
Check	
speed 1/min	: < 215
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure	4000
hPa Rated speed rpm	: 1000 : 600
Del. quantity	. 000
cm3/1000 strokes	: 197.0
Tolerance cm3/1000 strokes	; +- 3.0
Check tolerance	; +- 3.0
cm3/1000s.	: +- 6.0
Aneroid pressure	
hPa	: -
Rated speed rpm	: 500
Del. quantity	. 497.0
cm3/1000 strokes Tolerance	: 104.0
cm3/1000 strokes	: + 1.0
Check tolerance	
cm3/1000s.	;
BREAKAWAY	
Rack travel in mm	ı: -1.00
Rated speed rpm	: 1080
Tolerance 1/min	: +- 5
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
Del. quantity	
cm3/1000 strokes	: 145.0
Tolerance cm3/1000 strokes	: ← 10.0
Check tolerance	
cm3/1000s.	: + 14.0

LOW IDLE			
Del. quantity cm3/1000 strokes Tolerance	:	27.0	
cm3/1000 strokes	: +-	2.0	
Check tolerance cm3/1000S. Spreed	: +-	5.0	
Tolerance cm3/1000 strokes Check tolerance	:	8.0	
cm3/1000s.	:	12.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 24.08.95 : ISO 4113

Combination No. : 0 400 464 116

Injection pump

Pump designation : PES4A75D410/3RS1255

EP type number : 0 410 474 966

Governor

Governer design. : RSV325...900A7C602L

Governer no. : 0 420 232 320

Cust. part No. :

Customer-spec. information

Customer : KHD

Motor

: F4L912

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.0

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar

: +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter :

2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : +- 1.0

Firing order : 1-3-4-2

Phasina

: 0-90-180-270

Tolerance

Check

tolerance °NW

: ← 0.75

880

: + 0.50

BASIC SETTING

Rated speed rpm :

Rack travel in mm: 11.25

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 44.0

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : +-2.0

Spreed

Tolerance

cm3/1000 strokes :

2.0

Check tolerance

cm3/1000s.

3.5

Rated speed rpm :

325

8.70 Rack travel in mm :

Tolerance mm : +- 0.20

Del. quantity

cm3/1000 strokes : 12.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance cm3/1000s.	: +- 4.5	‡	
Spreed Tolerance		LOW IDLE	
cm3/1000 strokes Check tolerance	: 2.0	1	
cm3/1000s.	: 3.0	control lever position degree tolerance degree	
(B) SETTING OF IN	JECTION PUMP	+	
WITH GOVERNOR		Setting point w/c	out bumper spring
		+ Rated speed rpm + rack travel mm	
GUIDE SLEEVE POSI	TION	+	. 0.70
Rated speed rpm	: 800	+ Testing:	
		Rated speed rpm	
Rack travel in mm Tolerance mm	0.65 : +- 0.35	rack travel mm Tolerance mm	: 8.20 : +- 0.10
		T rack travel mm	: 2.00
FULL LOAD DELIVER	Y AT FULL LOAD STOP	Rated speed rpm Tolerance 1/min	: 450 : +- 30
Rated speed rpm	: 880	T rocerance mini	
Aneroid pressure hPa	•	+ Rated speed rpm	: 100
Del. quantity	•	CRT mm min.	: > 19.50
cm3/1000 strokes	: 44.0	+	
Tolerance cm3/1000 strokes	: +- 0.5	TORQUE CONTROL	
Check tolerance		Posted as and asset	890
cm3/1000s. Spreed	: + 2.0	+ Rated speed rpm + rack travel mm	: 880 : 11.25
Tolerance	0.0	+ Tolerance mm	: +- 0.05
cm3/1000 strokes Check tolerance	: 2.0	+ Rated speed rpm	: 500
cm3/1000s.	: 3.5	+ rack travel mm	: 11.30
		† Tolerance mm	: ← 0.10
0017001 17170		+	
CONTROL LEVER		‡	
control lever	. 5/ 0	+	
position degree tolerance degree	: 54.0 : + 4.0	BREAKAWAY	
RATED SPEED		+	
rack travel mm	: 10.20	+ Rack travel in mm + Rated speed rpm	10.20 : 925
Rated speed rpm	: 925	+ Tolerance 1/min	: +- 5
Tolerance 1/min	: +- 5	1	
rack travel mm	: 4.00	+	
Rated speed rpm Tolerance 1/min	: 960 : +- 15	STARTING FUEL DEL	IVERY
TOTEL OFFICE TAIRLET		T Rated speed rpm	: 100
rack travel mm Tolerance mm	: 1.00 : +- 0.70	1	
Rated speed rpm	1050	+	

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm Del. quantity	: +-	325 8.70 0.20	
	:	12.0	
Tolerance		7.0	
cm3/1000 strokes Check tolerance	: +	3.0	
cm3/1000s.	; +-	4.5	
Spreed			
Tolerance cm3/1000 strokes	:	2.0	
Check tolerance		7.0	
cm3/1000s.	;	3.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil · 04.05.95 : ISO 4113

Combination No. : 0 400 464 118

Injection pump

Pump designation : PES4A75D410/3RS1255

EP type number : 0 410 474 966

Governor

Governer design. : RSV325...1400A8C742L

Governer no. : 0 420 232 342

Cust. part No.

Customer-spec. information

Customer

: KHD

: F4L912 Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp, °C

Tolerance °C

2.0

Overflow valve

: 1 419 992 198

Inlet press. bar :

1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

: 1 680 750 014

Outside diameter :

6.0

Test lines

x inside diameter :

2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Firing order : 1-3-4-2

: 0-90-180-270 Phasing

: +- 0.50

Tolerance

Check tolerance °NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 11.55 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 55.5

Tolerance

cm3/1000 strokes 0.5

Check tolerance

cm3/1000s. 2.0 : +-

Spreed

Tolerance

cm3/1000 strokes : 2.0

Check tolerance

cm3/1000s.

3.5

325 Rated speed rpm :

Rack travel in mm : 6.00 : +- 0.20 Tolerance mm

Del. quantity

cm3/1000 strokes : 12.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INVITH GOVERNOR	: 3.0	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1600 rack travel mm : 4.00 Rated speed rpm : 1500 LOW IDLE
GUIDE SLEEVE POS	ITION	control lever position degree : 14.0
Rated speed rpm	: 800	tolerance degree : +- 4.0
		Setting point w/out bumper spring
Rack travel in m		Potest annual annual 225
Tolerance mm	: + 0.20	+ Rated speed rpm : 325 + rack travel mm : 5.50
governor spring		+
pre-tension	: 4.75	† Testing:
click setting x	: 4.75	Rated speed rpm : 325
		† rack travel mm : 6.00
FULL LOAD DELIVER	RY AT FULL LOAD STOP	+ Tolerance mm : +- 0.10
Rated speed rpm	; 1400	rack travel mm : 2.00
Aneroid pressure		+ Rated speed rpm : 550
hPa	: -	+ Tolerance 1/min : +- 30
Del. quantity cm3/1000 strokes	: 55.5	<u> </u>
Tolerance	. 55.5	TORQUE CONTROL
cm3/1000 strokes	: +- 0.5	}
Check tolerance cm3/1000s.	: +- 2.0	+ Dimension a mm : 0.90 + Rated speed rpm : 1400
Spreed	: 2.0	+ Rated speed rpm : 1400 + rack travel mm : 11.55
Tolerance		Tolerance mm : + 0.05
cm3/1000 strokes	: 2.0	† Dat 1 m 1 m 500
Check tolerance cm3/1000s.	: 3.5	+ Rated speed rpm : 500 + rack travel mm : 12.45
(1113) 10000.	. 5.5	+ Tolerance mm : + 0.05
		+
CONTROL LEVER		+ Rated speed rpm : 900 + rack travel mm : 12.30
CONTROL LEVER		+ Tolerance mm : + 0.10
control lever	-	+
position degree	: 72.0 : +- 4.0	†
tolerance degree	4.0	Ţ
RATED SPEED	·	
rack travel mm	: 10.00	fuel delivery characteristics
Rated speed rpm	: 1445	Aneroid pressure
Tolerance 1/min	: +- 5	+ hPa : -
manda deservado s	. / 00	Rated speed rpm : 800
rack travel mm Rated speed rpm	: 4.00 : 1485	+ Del. quantity + cm3/1000 strokes : 51.0
Tolerance 1/min	: +- 15	+

Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : +-3.0 BREAKAWAY Rack travel in mm : 10.00 Rated speed rpm : 1445 Tolerance 1/min : +-STARTING FUEL DELIVERY Rated speed rpm 100 20.25 rack travel mm : Tolerance mm : +- 0.75 Del. quantity cm3/1000 strokes : 110.0 Tolerance cm3/1000 strokes : \leftarrow 5.0 Check tolerance cm3/1000s. 8.0 LOW IDLE 325 Rated speed rpm : 6.00 rack travel mm : +- 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 2.0 cm3/1000 strokes : Check tolerance 3.0 cm3/1000s. End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 27,07,92

Test oil

: ISO 4113

Combination No. : 0 400 466 099

Injection pump

Pump designation: PES6A75D410/3RS1360

EP type number : 0 410 476 976

Governor

Governer design. : RSV325...1150A8C494

: -4L

Governer no.

: 0 420 232 572

Cust. part No. :

Customer-spec. information Customer

: KHD

Motor

: F6L912

Power KW

: 74.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

40

Tolerance °C

2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

: +- 1.5

Test lines

: 1 680 750 014

Outside diameter : 6.0

2.0 x inside diameter: 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order

: 1-5- 3- 6- 2-: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance °NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 11.15

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 52.0

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance

cm3/1000s. 2.0

Spreed

Tolerance

cm3/1000 strokes : 2.5

Check tolerance

cm3/1000s.

4.0

Del. quantity

cm3/1000 strokes :

13.0

Tolerance

cm3/1000 strokes : +- 3.0

B05

Check tolerance	1
cm3/1000s. : + 4.5	Track travel mm : 0.85
Spreed	+ Tolerance mm : + 0.55
Tolerance	+ Rated speed rpm : 1350
cm3/1000 strokes : 2.0	t mode though an a 4 00
Check tolerance cm3/1000s. : 3.5	rack travel mm : 4.00 Rated speed rpm : 1250
CHIST 100001 . 3.5	Added speed 1 pm . 1230
	+
(B) SETTING OF INJECTION PUMP	1017017
WITH GOVERNOR	LOW IDLE
	I
	+ control lever
GUIDE SLEEVE POSITION	+ position degree : 71.0
Rated speed rpm : 800	tolerance degree : + 4.0
Rated Speed (pill . 900	Setting point w/out bumper spring
Rack travel in mm : 0.65	+
Tolerance mm : +- 0.35	Rated speed rpm : 325
	rack travel mm : 7.20
governor spring pre-tension	Testing:
click setting x : 4.20	resumg.
	Rated speed rpm : 325
	+ rack travel mm : 6.70
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance mm : + 0.10
Rated speed rpm : 1150	+ rack travel mm : 2.00
Aneroid pressure	+ Rated speed rpm : 465
hPa : -	+ Tolerance 1/min : + 30
Del. quantity	+
cm3/1000 strokes : 52.0 Tolerance	+ Rated speed rpm : 100
cm3/1000 strokes : +- 0.5	CRT mm min. : > 19.50
Check tolerance	+
cm3/1000s. : + 2.0	
Spreed Tolerance	+ TORQUE CONTROL
cm3/1000 strokes : 2.5	Rated speed rpm : 1150
Check tolerance	+ rack travel mm : 11.15
cm3/1000s. : 4.0	+ Tolerance mm : + 0.05
	+ Rated speed rpm : 750
	+ Rated speed rpm : 750 + rack travel mm : 12.40
CONTROL LEVER	+ Tolerance mm : + 0.10
	+
control lever	+ Rated speed rpm : 950
position degree : 106.0 tolerance degree : +- 4.0	rack travel mm : 11.70 Tolerance mm : + 0.10
tolerance degree : + 4.0	T roterance min 0.10
RATED SPEED	+
	+
rack travel mm : 10.10	†
Rated speed rpm : 1195 Tolerance 1/min : +- 5	FUEL DELIVERY CHARACTERISTICS
roterance minute	T LOFF DEFINE CHANACLEUTSITES
rack travel mm : 4.00	+ Aneroid pressure
Rated speed rpm : 1240	+ hPa :
Tolerance 1/min : +- 15	+ Rated speed rpm : 750

Del. quantity cm3/1000 strokes : 56.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. : +-3.0 BREAKAWAY 10.10 Rack travel in mm: Rated speed rpm Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 20.25 rack travel mm : +- 0.75 Tolerance mm Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes 5.0 Check tolerance cm3/1000s. 8.0 LOW IDLE Del. quantity cm3/1000 strokes : 13.0 Tolerance 3.0 cm3/1000 strokes Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. 3.5 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 29.05.95 : ISO 4113

Combination No. : 0 400 863 012

Injection pump

Pump designation: PES3A85D410/3RS2731

EP type number : 0 410 883 988

Governor

Governer design. : RSV325...1250A2C2168

: -3L

Governer no.

: 0 420 232 475

Cust. part No.

Customer-spec. information

Customer

: KHD

Motor

: F3L913

Power KW

: 44.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1 417 413 000

Inlet press. bar :

1.0

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

Test lines

: 1 680 750 014

Outside diameter :

6.0

x inside diameter:

2.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0

Tolerance bar

: +- 1.0

Firing order

: 1- 3- 2

Phasing

: 0-120-240

Tolerance

: +- 0.50

Check

tolerance °NW

: **→** 0.75

BASIC SETTING

Rated speed rpm

: 1250

Rack travel in mm :

9.95

Tolerance mm

: + 0.05

Del. quantity

cm3/1000 strokes :

69.0

Tolerance

cm3/1000 strokes

: +-0.5

Check tolerance

cm3/1000s.

: +-2.5

Spreed

Tolerance

cm3/1000 strokes :

3.0

Check tolerance

cm3/1000s.

5.0

Rated speed rpm :

325

Rack travel in mm :

6.30

Tolerance mm

: +- 0.20

Del. quantity

cm3/1000 strokes : 13.0

B08

Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR	: + 5.0 : 2.5 : 4.5	Rated speed rpm : 1330 Tolerance 1/min : + 15 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1500 rack travel mm : 4.00 Rated speed rpm : 1345 LOW IDLE
		control lever
GUIDE SLEEVE POSI	+	position degree : 66.0 tolerance degree : + 4.0
Rated speed rpm	+	Setting point w/out bumper spring
Rack travel in mm Tolerance mm		Rated speed rpm : 325 rack travel mm : 5.80
governor spring pre-tension click setting x	: 4.50	Testing: Rated speed rpm : 325
FULL LOAD DELIVER	Y AT FULL LOAD STOP	rack travel mm : 6.30 Tolerance mm : + 0.10
Rated speed rpm Aneroid pressure hPa	: 1250	rack travel mm : 2.00 Rated speed rpm : 490 Tolerance 1/min : +- 30
Del. quantity cm3/1000 strokes	: 69.0	Rated speed rpm : 100
Tolerance cm3/1000 strokes Check tolerance	: +- 0.5	CRT mm min. : > 19.50
cm3/1000s. Spreed	: +- 2.5	TORQUE CONTROL
Tolerance cm3/1000 strokes Check tolerance	+	Dimension a mm : 0.40 Rated speed rpm : 1250 rack travel mm : 9.95
cm3/1000s.	: 5.0	Tolerance mm : +- 0.05
CONTROL LEVER		Rated speed rpm : 500 rack travel mm : 10.25 Tolerance mm : +- 0.05
control lever position degree tolerance degree		Rated speed rpm : 960 rack travel mm : 10.00 Tolerance mm : +- 0.10
RATED SPEED	1	TO COT GITTO THE COTTO
rack travel mm Rated speed rpm Tolerance 1/min	: 8.90 : 1295 : +- 5	FILE DELTALEDY CHARACTERICS
rack travel mm	: 4.00	FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 1295
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 17.10 : +- 0.10 : 120.0
LOW IDLE	
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 325 : 6.30 : + 0.20 : 13.0 : + 3.0 : + 5.0 : 2.5 : 4.5
End of test specif	fication sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 28.04.95 Edition : ISO 4113 Test oil

Combination No. : 0 400 863 014

Injection pump

Pump designation : PES3A85D410/3RS2642

EP type number : 0 410 883 989

Governor

Governer design. : RSV325...1000A8C2102

: -2L

: 0 420 232 507 Governer no.

Cust. part No. :

Customer-spec. information : KHD Customer : F3L913 Motor Power KW 37.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0 x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Firing order : 1- 3- 2

: 0-120-240 Phasing

Tolerance : + 0.50

Check

tolerance "NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 10.05 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 63.0

Tolerance cm3/1000 strokes : +-0.5

Check tolerance cm3/1000s. : +-2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s. 5.0

Rated speed rpm : 325

Rack travel in mm: 7.60

Tolerance mm : ← 0.20

Del. quantity cm3/1000 strokes : 12.0

B11

Tolerance	+ Rated speed rpm : 1075
cm3/1000 strokes : +- 3.0	+ Tolerance 1/min : +- 15
Check tolerance	Total allow Trill Tri
cm3/1000s. : +- 5.0	rack travel mm : 0.85
Spreed	+ Tolerance mm : + 0.55
Tolerance	Rated speed rpm : 1240
cm3/1000 strokes : 2.5	1.4004 00004 10111
Check tolerance	rack travel mm : 4.00
cm3/1000s. : 4.5	+ Rated speed rpm : 1090
	1 11202 0000 1000
	1
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	+ LOW IDLE
	+
	}
	+ control lever
GUIDE SLEEVE POSITION	+ position degree : 67.0
	+ tolerance degree : +- 4.0
Rated speed rpm : 800	+
	Setting point w/out bumper spring
Rack travel in mm : 0.50	+
Tolerance mm : + 0.20	+ Rated speed rpm : 325
	+ rack travel mm : 7.10
governor_spring	† .
pre-tension	+ Testing:
click setting x : 4.30	†
	+ Rated speed rpm : 325
	+ rack travel mm : 7.60
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance mm : + 0.10
Dated annual man 1000	mode through my
Rated speed rpm : 1000	+ rack travel mm : 2.00
Aneroid pressure hPa : -	+ Rated speed rpm : 440 + Tolerance 1/min : + 30
Del. quantity	Toterance min : — 50
cm3/1000 strokes : 63.0	Rated speed rpm : 100
Tolerance	T Nated speed (pin . 100
cm3/1000 strokes : +- 0.5	\perp CRT mm min. : > 19.50
Check tolerance	CIVI IMII IIIII
cm3/1000s. : +- 2.5	
Spreed	+ TORQUE CONTROL
Tolerance	1
cm3/1000 strokes : 3.0	+ Dimension a mm : 0.50
Check tolerance	+ Rated speed rpm : 1000
cm3/1000s. : 5.0	+ rack travel mm : 10.05
	+ Tolerance mm : + 0.05
	+
	+ Rated speed rpm : 500
CONTROL LEVER	+ rack travel mm : 10.55
` ,	+ Tolerance mm : + 0.05
control lever	+
position degree : 94.0	+ Rated speed rpm : 855
tolerance degree : ← 4.0	+ rack travel mm : 10.30
	+ Tolerance mm : +- 0.10
RATED SPEED	†
	†
rack travel mm : 9.00	†
Rated speed rpm : 1045	†
Tolerance 1/min : +- 5	ELEL DEL TUEDY CUADACTEDISTICO
rack travel mm : 4.00	fuel delivery characteristics
rack travel mm : 4.00	Τ

Aneroid pressure hPa Rated speed rpm 750 Del. quantity cm3/1000 strokes : 60.0 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 3,5 **BREAKAWAY** Rack travel in mm: 9.00 Rated speed rpm 1045 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 20.25 : + - 0.75Tolerance mm Del. quantity cm3/1000 strokes : 140.0 Tolerance 5.0 cm3/1000 strokes Check tolerance cm3/1000s. 8.0 LOW IDLE 325 Rated speed rpm 7.60 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes 12.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance 2.5 cm3/1000 strokes Check tolerance cm3/1000s. 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.06.95 Test oil : ISO 4113

Combination No. : 0 400 864 054

Injection pump

Pump designation : PES4A85D410/3RS2638

EP type number : 0 410 884 950

Governor

Governer design. : RSV325...1150A0C2168

: L

Governer no. : 0 420 232 364

Cust. part No. :

Customer-spec. information
Customer : KHD
Motor : BF4L913
Power KW : 66.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : + 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1110

Rack travel in mm : 12.35
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 80.5

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. : 4.5

Rated speed rpm : 325

Rack travel in mm: 7.70

Tolerance mm : + 0.20

Del. quantity

cm3/1000 strokes : 12.0

Tolerance +	Rated speed rpm : 1265
cm3/1000 strokes : + 3.0 + Check tolerance +	Tolerance 1/min : +- 15
cm3/1000s. : +- 5.0 +- 5.0	rack travel mm : 0.85 Tolerance mm : +- 0.55
Tolerance +	Rated speed rpm : 1430
cm3/1000 strokes : 2.0 + Check tolerance +	rack travel mm : 4.00
cm3/1000s. : 4.0	Rated speed rpm : 1335
(B) SETTING OF INJECTION PUMP +	
WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	control lever
+	position degree : 81.0 tolerance degree : +- 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50 + Tolerance mm: + 0.20 +	Rated speed rpm : 325
+	rack travel mm : 7.70
governor spring + pre-tension +	Testing:
click setting x : 4.75	Rated speed rpm : 325
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 7.20 Tolerance mm : + 0.10
+	
Rated speed rpm : 1110 + Aneroid pressure +	rack travel mm : 2.00 Rated speed rpm : 555
hPa : - + Del. quantity +	Tolerance 1/min : +- 25
cm3/1000 strokes : 80.5	Rated speed rpm : 100
Tolerance cm3/1000 strokes : + 0.5	CRT mm min. : > 19.50
Check tolerance + 2.5 +	•
Spreed + Tolerance +	TORQUE CONTROL
cm3/1000 strokes : 3.0 +	Rated speed rpm : 1110
Check tolerance cm3/1000s. : 4.5	rack travel mm : 12.35 Tolerance mm : + 0.05
‡	Rated speed rpm : 500
CONTROL LEVER	rack travel mm : 13.15 Tolerance mm : +- 0.05
+	
control lever position degree : 105.0	Rated speed rpm : 940 rack travel mm : 12.80
tolerance degree : + 4.0	Tolerance mm $: \leftarrow 0.10$
RATED SPEED	
rack travel mm : 11.30	
Rated speed rpm : 1160 + Tolerance 1/min : + 5	FUEL DELIVERY CHARACTERISTICS
rack travel mm : 4.00 +	

Aneroid pressure hPa 700 Rated speed rpm Del. quantity 80.5 cm3/1000 strokes : Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 3.5 **BREAKAWAY** Rack travel in mm : 11.30 Rated speed rpm 1160 Tolerance 1/min STARTING FUEL DELIVERY 100 Rated speed rpm rack travel mm 17.00 Tolerance mm : +- 0.20 Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes 5.0 Check tolerance 8.0 cm3/1000s. LOW IDLE 325 Rated speed rpm 7.70 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes 12.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance 2.0 cm3/1000 strokes : Check tolerance cm3/1000s. 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18,09,95 Test oil : ISO 4113

Combination No. : 0 400 864 087

Injection pump

Pump designation : PES4A85D410/3RS2799

EP type number : 0 410 884 944

Governor

Governer design. : RSV325...1075A8C2253

: -1L

: 0 420 232 555 Governer no.

Cust. part No.

Customer-spec. information

: KHD Customer

: BF4L913 Motor Power KW : 65.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1 419 922 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

bar 173.5 Tolerance bar

: 1 680 750 014 Test lines

Outside diameter : 6.0 x inside diameter: 2.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

2.55 Prestroke mm Tolerance mm : + - 0.05

Check

: + - 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : +- 0.50

Check

: + 0.75tolerance "NW

BASIC SETTING

980 Rated speed rpm

Rack travel in mm: 11.60 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 78.5

Tolerance

0.5 cm3/1000 strokes : +-

Check tolerance

cm3/1000s. : +-2.5

Spreed Tolerance

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s. : 7.0	tolerance degree : +- 4.0
Rated speed rpm : 475	- RATED SPEED
riated speed (pill : 475	- - rack travel mm : 10.60
Rack travel in mm: 7.20 Tolerance mm: +- 0.10	- Rated speed rpm : 1025 - Tolerance 1/min : + 5
Del. quantity	- Toterance Minn . T
cm3/1000 strokes : 14.0	- rack travel mm : 4.00
Tolerance	- Rated speed rpm : 1085
cm3/1000 strokes : + 2.0	- Tolerance 1/min : +- 15
Check toLerance	-
cm3/1000s. : +- 4.0	- rack travel mm : 0.85
Spreed	- Tolerance mm : +- 0.55
Tolerance	- Rated speed rpm : 1250
cm3/1000 strokes : 4.5	
Check tolerance	- rack travel mm : 4.00
cm3/1000s. : 7.0	- Rated speed rpm : 1100
1.0	- Auted Speed (pill : 1100
<u> 1</u>	_
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	- LOW IDLE
1	-
<u> </u>	_
	- control lever
GUIDE SLEEVE POSITION	position degree : 77.0
	tolerance degree : +- 4.0
Rated speed rpm : 800	
The state of the s	Setting point w/out bumper spring
Rack travel in mm: 0.50	·
Tolerance mm : + 0.20	- Rated speed rpm : 475
1	rack travel mm : 6.70
governor spring	•
pre-tension +	Testing:
click setting x : 4.75	
+	Rated speed rpm : 475
<u> </u>	rack travel mm : 7.20
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10
4	•
Rated speed rpm : 980	rack travel mm : 2.00
Aneroid pressure	Rated speed rpm : 590
hPa : 1000 +	
Del. quantity	
cm3/1000 strokes : 78.5	TORQUE CONTROL
Tolerance +	•
cm3/1000 strokes : \leftarrow 0.5 $+$	Rated speed rpm : 980
Check tolerance +	rack travel mm : 11.60
cm3/1000s. : +- 2.5 +	Tolerance mm : +- 0.05
Spreed +	
Tolerance	Rated speed rpm : 500
cm3/1000 strokes : 3.0 +	rack travel mm : 12.15
Check tolerance +	Tolerance mm : +- 0.05
cm3/1000s. : 7.0	
+	Rated speed rpm : 700
+	rack travel mm : 12.10
	Tolerance mm : +- 0.05
CONTROL LEVER +	
+	Rated speed rpm : 825
control lever	rack travel mm : 11.80
position degree : 101.0	Tolerance mm : +- 0.10

ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1000 : 12.15 : +- 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 11.00 : + 0.05
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 310 : 11.30 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 400 : 11.60 : + 0.05
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1000 : 700 : 79.0 : +- 1.5 : +- 3.5
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - : 500 : 59.0 : + 0.5 : + 2.5

Rated speed rpm : 1025
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.80 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 125.0 Tolerance cm3/1000 strokes : + 7.5 Check tolerance cm3/1000s. : + 10.0

LOW IDLE

Rated speed rpm 475 7.20 rack travel mm Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 14.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.0 : +--Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. 7.0

End of test specification sheet

Rack travel in mm :

10.60

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 30.05.95

Test oil

: ISO 4113

Combination No. : 0 400 864 089

Injection pump

Pump designation : PES4A85D410/3RS2799

EP type number : 0 410 884 944

Governor

Governer design. : RSV325...1075A8C2253

: -3L

Governer no.

: 0 420 232 547

Cust. part No.

Customer-spec. information

Customer

: KHD

Motor

: BF4L913

Power KW

: 70.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1 417 413 000

Inlet press. bar :

1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

Test lines

: 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0

Tolerance bar : + 1.0

Firing order : 1-3-4-2

Phasing

: 0-90-180-270

Tolerance

: + - 0.50

Check

tolerance °NW

: + 0.75

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm: 11.95 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes :

80.0

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance

cm3/1000s.

: +- 2.5

Spreed

Tolerance

cm3/1000 strokes :

3.0

Check tolerance

cm3/1000s.

5.0

Rated speed rpm :

325

Rack travel in mm:

8.30

Tolerance mm

: +- 0.20

Del. quantity

cm3/1000 strokes : 15.0

Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 4.5	Rated speed rpm : 1165 Tolerance 1/min : \(\square \) 15 rack travel mm : 1.00 Tolerance mm : \(\square \) 0.70 Rated speed rpm : 1315
	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 68.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 800 Rack travel in mm : 0.50	Rated speed rpm : 325 rack travel mm : 8.30 Tolerance mm : + 0.10
Tolerance mm : +- 0.20 governor spring pre-tension click setting x : 4.00	rack travel mm : 2.00 Rated speed rpm : 380 Tolerance 1/min : +- 30
	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : > 19.50
Rated speed rpm : 1075 Aneroid pressure	SET IDLE AUXILIARY SPRING
hPa : 1000 Del. quantity	Rated speed rpm : 100
cm3/1000 strokes : 80.0 Tolerance	TORQUE CONTROL
cm3/1000 strokes : +- 0.5 Check tolerance	Rated speed rpm : 1075
cm3/1000s. : + 2.5 Spreed	rack travel mm : 11.95 Tolerance mm : 1- 0.05
Tolerance cm3/1000 strokes : 3.0 Check tolerance	Rated speed rpm : 500 rack travel mm : 12.45
cm3/1000s. : 5.0	Tolerance mm : + 0.05
CONTROL LEVER	Rated speed rpm : 860 rack travel mm : 12.30 Tolerance mm : + 0.10
control lever	<u> </u>
position degree : 99.0 tolerance degree : + 4.0	ANEROID/ALTITUDE COMPENSATOR TEST
RATED SPEED	+ SETTING
rack travel mm : 10.90 Rated speed rpm : 1120 Tolerance 1/min : +- 5	Rated speed rpm : 500 Pressure hPa : 1000
rack travel mm : 4.00	+ rack travel mm : 12.45 + Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 11.45
Tolerance mm : + 0.05

Rated speed rpm : 500

Pressure hPa : 250 rack travel mm : 11.80 Tolerance mm : \pm 0.10

Pressure hPa : 330 rack travel mm : 12.05 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1009 Rated speed rpm : 750 Del. quantity

cm3/1000 strokes : 80.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.5

Aneroid pressure

hPa Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 58.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

BREAKAWAY

Rack travel in mm : 10.90
Rated speed rpm : 1120
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 18.20 Tolerance mm : + 0.20

Del. quantity

cm3/1000 strokes : 120.0

Tolerance cm3/1000 strokes : +- 5.0 Check tolerance

cm3/1000s. : +- 8.0

LOW IDLE

Rated speed rpm 325 rack travel mm 8.30 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 5.0 : +-Spreed Tolerance 2.5 cm3/1000 strokes : Check tolerance cm3/1000s. 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 17.06.95 : ISO 4113

Combination No. : 0 400 865 017

Injection pump

Pump designation : PES5A80D410/3RS2526

EP type number : 0 410 885 004

Governor

Governer design. : RSV325...1400A8C540L

Governer no.

: 0 420 232 311

Cust. part No.

Customer-spec. information

Customer

: KHD

Motor

: F5L912

Power KW

: 62.5

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

40

Tolerance °C

2.0

Overflow valve

: 1 417 413 000

Inlet press. bar : 1.0

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

: +- 1.5

Test lines

: 1 680 750 014

Outside diameter : 6.0

x inside diameter :

2.0

x Length mm :

የሀሀ

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order : 1-3-5-4-2

Phasing Tolerance : 0-72-144-216-288 : + 0.50

Check

tolerance °NW

: + 0.75

BASIC SETTING

Rated speed rpm 1380

Rack travel in mm: 11.55

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 65.5

Tolerance

cm3/1000 strokes 0.5 : +--

Check tolerance

cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes :

2.0

2.0

Check tolerance

cm3/1000s.

3.5

Rated speed rpm : 325

8.10 Rack travel in mm : Tolerance mm 0.10

Del. quantity

cm3/1000 strokes : 9.0

Tolerance	+	Rated speed rpm	
cm3/1000 strokes : +- 3.0	+	Tolerance 1/min	: +- 15
Check tolerance	. †		4
cm3/1000s. : +- 4.5	· †	rack travel mm	: 1.00
Spreed	†	Tolerance min	: +- 0.70
Tolerance cm3/1000 strokes : 2.0	, †	Rated speed rpm	: 1650
cm3/1000 strokes : 2.0 Check tolerance	' I	rack travel mm	: 4.00
cm3/1000s. : 3.0	\mathbf{I}	Rated speed rpm	
	` 	nacca opeca i piii	. 1520
(B) SETTING OF INJECTION PUM	iP +		
WITH GOVERNOR	+	LOW IDLE	
	+		
	†		
CUINE OF EDUC DOCUTION		control lever	. 40.0
GUIDE SLEEVE POSITION	T	position degree tolerance degree	
Rated speed rpm : 800	I	toterance degree	4.0
Matea speed (piii : Obo	1	Setting point w/o	ut humber spring
Rack travel in mm : 0.65	;	octomy point wo	at bamper opining
Tolerance mm : + 0.35		Rated speed rpm	: 325
	4	rack travel mm	
governor spring	+		
pre-tension	+	Testing:	
click setting $x : 5.50$	' †		705
	†	Rated speed rpm	: 325
FIRE LOAD DELIVERY AT FIRE	CAD STOD	rack travel mm	: 7.60
FULL LOAD DELIVERY AT FULL L	OAD STOP	Tolerance mm	: + 0.10
Rated speed rpm : 1380	I	rack travel mm	: 2.00
Aneroid pressure	1	Rated speed rpm	: 655
hPa : -	4	Tolerance 1/min	
Del. quantity	+		
cm3/1000 strokes : 65.5	· •		
Tolerance	+	TORQUE CONTROL	
cm3/1000 strokes : + 0.5	†		
Check tolerance	<u> </u>	Rated speed rpm	
cm3/1000s. : + 2.0	†	rack travel mm	: 11.55
Spreed Tolerance	Ť	Tolerance mm	: + 0.05
cm3/1000 strokes : 2.0	I	Rated speed rpm	: 500
Check tolerance	1	rack travel mm	: 12.75
cm3/1000s. : 3.5	į.	Tolerance mm	: ← 0.05
	1		
	+	Rated speed rpm	: 900
		rack travel mm	: 12.25
CONTROL LEVER	+	Tolerance mm	: +- 0.15
and the last	†		
control lever	†		
position degree : 116.0			
tolerance degree : +- 4.0	†		
RATED SPEED	I	·	
NATED OF CED	Ţ	BREAKAWAY	
rack travel mm : 10.50	4		
Rated speed rpm : 1425	+		
Tolerance 1/min : + 5	+	Rack travel in mm	
	+	Rated speed rpm	
rack travel mm : 4.00	+	Tolerance 1/min	: +- 5
	•		

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm Del. quantity	: : +-	325 8.10 0.10	
cm3/1000 strokes	:	9.0	
Tolerance cm3/1000 strokes		3.0	
Check tolerance	• •	5.0	
cm3/1000s.	: +-	4.5	
cm3/1000 strokes	:	2.0	
Check tolerance cm3/1000s.	:	3.0	
cm3/1000S. Spreed Tolerance cm3/1000 strokes Check tolerance	: +-	2.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 31,10,84 Test oil : ISO 4113

Combination No. : 0 400 866 078

Injection pump

Pump designation : PES6A85D410/3RS2415

EP type number : 0 410 886 915

Governor

Governer design. : RSV325...900A7C720L

: 0 420 232 339 Governer no.

Cust. part No.

Customer-spec. information

Customer : KHD

Motor : BF6L913

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.0

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : +- 1.5

Tolerance bar

: 1 680 750 014 Test lines

Outside diameter : 6.0

2.0 x inside diameter:

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

900 Rated speed rpm

Rack travel in mm: 11.85

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes :

68.5

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance

cm3/1000s. 2.5 : +-

Spreed

Tolerance

cm3/1000 strokes :

3.0

Check tolerance

cm3/1000s. 4.5

Rated speed rpm : 325

Rack travel in mm : 8.10

Tolerance mm : +- 0.20

Del. quantity cm3/1000 strokes : 12.0

Tolerance cm3/1000 strokes : +- 3.0	+ Tolerance mm : + 0.10
Check tolerance cm3/1000S. : +- 5.0 Spreed	TORQUE CONTROL
Tolerance cm3/1000 strokes : 2.0	Rated speed rpm : 900 rack travel mm : 11.85
Check tolerance cm3/1000s. : 4.0	Tolerance mm : +- 0.05
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 600 rack travel mm : 12.35 Tolerance mm : + 0.05
WITH GOVERNOR	Rated speed rpm : 800 rack travel mm : 12.15 Tolerance mm : + 0.15
FULL LOAD DELIVERY AT FULL LOAD STOP	Total and man
Rated speed rpm : 900 Aneroid pressure	<u> </u>
hPa : -	+
Del. quantity cm3/1000 strokes : 68.5 Tolerance	BREAKAWAY
cm3/1000 strokes : +- 0.5 Check tolerance	Rack travel in mm: 10.80
cm3/1000s. : +- 2.5 Spreed Tolerance	Rated speed rpm : 945 Tolerance 1/min : + 5
cm3/1000 strokes : 3.0 Check tolerance	-
cm3/1000s. : 4.5	‡
RATED SPEED	LOW IDLE
rack travel mm : 10.80 Rated speed rpm : 945	Rated speed rpm : 325 rack travel mm : 8.10
Tolerance 1/min : + 5	Tolerance mm : + 0.20
rack travel mm : 0.85 Tolerance mm : + 0.55	+ cm3/1000 strokes : 12.0 + Tolerance
Rated speed rpm : 1100	cm3/1000 strokes : + 3.0 Check tolerance
rack travel mm : 4.00 Rated speed rpm : 995	cm3/1000s. : + 5.0 Spreed Tolerance
	cm3/1000 strokes : 2.0
LOW IDLE	cm3/1000s. : 4.0
Setting point w/out bumper spring	<u> </u>
Rated speed rpm : 325 rack travel mm : 7.60	
Testing:	End of test specification shee
Rated speed rpm : 325	Ŧ
rack travel mm : 8.10	+

TORQUE CONTROL			
Rated speed rpm rack travel mm Tolerance mm	: : +	900 11.85 0.05	
Rated speed rpm rack travel mm Tolerance mm	:	600 12.35 0.05	
Rated speed rpm rack travel mm Tolerance mm	: +-	800 12.15 0.15	
BREAKAWAY			
DILLINAMAT			
Rack travel in mm Rated speed rpm	:	10.80 945	
Tolerance 1/min	: +-	943 5	
Tolerance 1/min	: +-		
LOW IDLE Rated speed rpm rack travel mm Tolerance mm	: +-		
LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity	: +-	325 8.10	
LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: +-	325 8.10 0.20 12.0	
LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: +-	325 8.10 0.20 12.0 3.0	
LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: +-	325 8.10 0.20 12.0	
LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: +-	325 8.10 0.20 12.0 3.0	
Tolerance 1/min LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: +-	325 8.10 0.20 12.0 3.0 5.0	
Tolerance 1/min Tolerance 1/min LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +-	325 8.10 0.20 12.0 3.0 5.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Fdition Test oil

: 29,05,95 : ISO 4113

Combination No. : 0 400 866 080

Injection pump

Pump designation: PES6A85D410/3RS2415

EP type number : 0 410 886 915

Governor

Governer design. : RSV325...1400A8C707

: -4L

Governer no.

: 0 420 232 461

Cust. part No.

Customer-spec. information

Customer

: KHD

Motor

: BF6L913

TEST BENCH REQUIREMENTS

Inlst line

: 3.1

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve

: 1 417 413 000

Inlet press. bar :

1.0

Test nazzle holde

assembey

: 0 681 343 009

Opening pressure

173.5

Tolerance bar

1.5

Test lines

: 1 680 750 014

Outside diameter :

6.0

x inside diameter : 2.0 :

x length mm

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order

: 1-5-3-6-2-

Phasing

: 0-60-120-180-240

: -300

Tolerance

 $: \leftarrow 0.50$

Check

tolerance °NW

: + 0.75

BASIC SETTING

Rated speed rpm

1400

Rack travel in mm:

Tolerance mm

10.85

: + 0.05

Del. quantity

cm3/1000 strokes :

76.5

Tolerance

cm3/1000 strokes

: +-0.5

Check tolerance

cm3/1000s.

: +--2.5

Spreed

Tolerance

cm3/1000 strokes :

3.0

Check tolerance

cm3/1000s.

4.5

Rated speed rpm

325 :

Rack travel in mm:

8.00

Tolerance mm : \leftarrow 0.20

Del. quantity +	
cm3/1000 strokes : 12.5	rack travel mm : 4.00
Tolerance	Rated speed rpm : 1485
cm3/1000 strokes : + 3.0 +	Tolerance 1/min : +- 15
Check tolerance	
cm3/1000s. : $+$ 5.0	rack travel mm : 0.85
Spreed	Tolerance mm : + 0.55
Tolerance +	Rated speed rpm : 1600
cm3/1000 strokes : 2.0	
Check tolerance + cm3/1000s. : 4.0	rack travel mm : 4.00
cm5/10005. : 4.0 +	Rated speed rpm : 1520
I	
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	LOW IDLE
WITH GOVERNON	ZOW IVEE
1	
	control lever
GUIDE SLEEVE POSITION	position degree : 68.0
	tolerance degree : +- 4.0
Rated speed rpm : 800	
1	Setting point w/out bumper spring
Rack travel in mm: 0.50	O ,
Tolerance mm : + 0.20	Rated speed rpm : 325
1	rack travel mm : 7.50
governor spring +	
pre-tension +	Testing:
click setting x : 5.25	_
+	Rated speed rpm : 325
	rack travel mm : 8.00
FULL LOAD DELIVERY AT FULL LOAD STOP +	Tolerance mm : +- 0.10
+	
Rated speed rpm : 1400 +	rack travel mm : 2.00
Aneroid pressure +	Rated speed rpm : 630
hPa : 700 +	Tolerance 1/min : +- 30
Del. quantity	5 4 1 400
cm3/1000 strokes : 76.5	Rated speed rpm : 100
Tolerance +	CRT mm min. : > 19.50
cm3/1000 strokes : + 0.5	CRT mm min. : > 19.50
Check tolerance + 2.5 +	
Spreed +	TORQUE CONTROL
Tolerance +	TORGOE CONTROL
cm3/1000 strokes : 3.0	Dimension a mm : 1.20
Check tolerance	Rated speed rpm : 1400
cm3/1000s. : 4.5	rack travel mm : 10.85
(1137 10000: 4.3	Tolerance mm : + 0.05
1	Total differential 1
	Rated speed rpm : 500
CONTROL LEVER	rack travel mm : 12.05
1	Tolerance mm : +- 0.05
control lever	- Section to the sect
position degree : 119.0	Rated speed rpm : 1040
tolerance degree : + 4.0	rack travel mm : 11.50
1	Tolerance mm : +- 0.10
RATED SPEED	
1	
rack travel mm : 9.80	
Rated speed rpm : 1445	
Tolerance 1/min : +- 5	
t in the second	

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 700
rack travel mm : 12.05
Tolerance mm : +- 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 10.25
Tolerance mm : + 0.05

Rated speed rpm : 500

Pressure hPa : 95 rack travel mm : 10.70 Tolerance mm : + 0.10

Pressure hPa : 360 rack travel mm : 11.75 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity

cm3/1000 strokes :

Tolerance cm3/1000 strokes : + 1.5

45.5

Check tolerance

cm3/1000s. : +- 3.5

BREAKAWAY

Rack travel in mm : 9.80
Rated speed rpm : 1445
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.20 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 110.0 Tolerance

lolerance

cm3/1000 strokes : +- 5.0

Check tolerance

cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm 325 rack travel mm 8.00 Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 12.5 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance

cm3/1000 strokes : 2.0

Check tolerance

cm3/1000s. : 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 23.08.95 : ISO 4113

Combination No. : 0 400 866 152

Injection pump

Pump designation : PES6A85D41D/3RS2783

EP type number : 0 410 886 893

Governor

Governer design. : RSV325...1250A5C2239

Governer no.

: 0 420 232 526

Cust. part No.

Customer-spec. information : KHD Customer : F6L912F Motor

POWER KW : 82.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

: 1 417 413 000 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0 x inside diameter: 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : +- 1.0

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: + 0.50Tolerance

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1235

Rack travel in mm: 11.85 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 70.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. 2.5 : +-

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. 5.0

325 Rated speed rpm :

6.00 Rack travel in mm :

Tolerance mm : \leftarrow 0.20

Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN.	: + 3.0 : + 5.0 : 2.5 : 4.5	rack travel mm : 4.00 Rated speed rpm : 1345 Tolerance 1/min : + 15 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1510 rack travel mm : 4.00 Rated speed rpm : 1360
WITH GOVERNOR	†	LOW IDLE
GUIDE SLEEVE POSITION Rated speed rpm Rack travel in mm Tolerance mm governor spring pre-tension click setting x	: 800 : 0.50 : + 0.20 : 4.50	control lever position degree : 73.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 6.00 Testing: Rated speed rpm : 325 rack travel mm : 5.50
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	Tolerance mm : +- 0.10
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: - ; 70.0	rack travel mm : 2.00 Rated speed rpm : 450 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50
cm3/1000s.	: +- 2.5	
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 3.0	TORQUE CONTROL Rated speed rpm : 1235 rack travel mm : 11.85 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.90
CONTROL LEVER	Ŧ	Tolerance mm : +- 0.10
control lever position degree tolerance degree	: 107.0 : + 4.0	
RATED SPEED	+	FUEL DELIVERY CHARACTERISTICS
rack travel mm Rated speed rpm Tolerance 1/min	: 10.80 : 1280 : + 5	Aneroid pressure hPa : - Rated speed rpm : 750

Del. quantity cm3/1000 strokes : 56.5 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 3.5 Aneroid pressure hPa 1000 Rated speed rpm Del. quantity cm3/1000 strokes : 65.0 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 3.5 BREAKAWAY Rack travel in mm: 10.80 Rated speed rpm 1280 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm : 20.25 Tolerance mm : + 0.75Del. quantity cm3/1000 strokes : 110.0 Tolerance 5.0 cm3/1000 strokes Check tolerance cm3/1000s. 8.0 LOW IDLE 325 Rated speed rpm rack travel mm 6.00 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 11.0 Tolerance 3.0 cm3/1000 strokes Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes 2.5 Check tolerance cm3/1000s. 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 28.08.95

Test oil

: ISO 4113

Combination No. : 0 400 866 169

Injection pump

Pump designation: PES6A85D410/3RS2611

EP type number : 0 410 886 902

Governor

Governer design. : RSV325...1250A2C540

: -3L

Governer no.

: 0 420 232 565

Cust. part No. :

Customer-spec. information

Customer

: KHD

Motor

: F6L913

Power KW

: 89.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

: +- 1.5

Test lines

: 1 680 750 014

Outside diameter :

6.0

x inside diameter :

2.0

x Length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance °NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 10.55

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 63.0

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance

cm3/1000s.

: +- 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance

5.0

cm3/1000s.

Rated speed rpm :

325

Rack travel in mm: 7.00

Tolerance mm : +- 0.20

C06

Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 4.5	rack travel mm : 4.00 Rated speed rpm : 1365 Tolerance 1/min : + 15 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1525
CM3/10UUS. : 4.3	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 74.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 800 - Rack travel in mm : 0.50	Rated speed rpm : 325 rack travel mm : 7.00 Tolerance mm : +- 0.10
Tolerance mm : + 0.20 governor spring	rack travel mm : 2.00 Rated speed rpm : 440
pre-tension - click setting x : 5.50 -	Tolerance 1/min : +- 30 Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : > 19.50
Rated speed rpm : 1250	SET IDLE AUXILIARY SPRING
Aneroid pressure hPa : Del. quantity -	Rated speed rpm : 100
cm3/1000 strokes : 63.0 - Tolerance -	TORQUE CONTROL
cm3/1000 strokes : +- 0.5 Check tolerance cm3/1000s. : +- 2.5 Spreed	Rated speed rpm : 1250 rack travel mm : 10.55 Tolerance mm : + 0.05
Tolerance - cm3/1000 strokes : 3.0 - Check tolerance cm3/1000s. : 5.0 - cm3/1000s.	Rated speed rpm : 500 rack travel mm : 11.15 Tolerance mm : +- 0.05
	Rated speed rpm : 1000 rack travel mm : 10.80
CONTROL LEVER -	Tolerance mm : +- 0.10
control lever position degree : 102.0 tolerance degree : + 4.0	
RATED SPEED	FUEL DELIVERY CHARACTERISTICS
rack travel mm : 9.50 - Rated speed rpm : 1295 - Tolerance 1/min : + 5 -	Aneroid pressure hPa : - Rated speed rpm : 800

Del. quantity	
cm3/1000 strokes Tolerance	
cm3/1000 strokes Check tolerance	: +- 1.0
cm3/1000s.	: + 3.5
Spreed	·
Tolerance cm3/1000 strokes	: 2.5
Check tolerance cm3/1000s.	: 4.5
CM3/(UUU3.	: 4.7
BREAKAWAY	
_	
Rack travel in mm Rated speed rpm	
Tolerance 1/min	: +- 5
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
rack travel mm	: 17.80
Tolerance mm Del. quantity	: +- 0.20
cm3/1000 strokes	: 120.0
Tolerance	
cm3/1000 strokes Check tolerance	: + 5.0
cm3/1000s.	: + 8.0
LOW IDLE	
Rated speed rpm	: 325
rack travel mm Tolerance mm	: 7.00 : +- 0.20
Del. quantity	
cm3/1000 strokes	: 15.0
Tolerance cm3/1000 strokes	: +- 3.0
Check tolerance	
cm3/1000S. Spreed	: +- 5.0
Tolerance	
cm3/1000 strokes Check tolerance	: 2.5
cm3/1000s.	: 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.05.95 Edition Test oil : ISO 4113

Combination No. : 0 400 866 173

Injection pump

Pump designation : PES6A85D410/3RS2611

EP type number : 0 410 886 902

Governor

Governer design. : RSV325...1200A0C2148

: -1L

: 0 420 232 567 Governer no.

Cust. part No.

Customer-spec. information

Customer

: KHD

Motor

: F6L913 H

Power KW 85.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C : +- 2.0

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar

Tolerance bar : +- 1.5

: 1 680 750 014 Test lines

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : +- 1.0

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

: +- 0.50 Tolerance

Check

tolerance °NW : +- 0.75

BASIC SETTING

Rated speed rpm 1200

Rack travel in mm: 10.45

: + 0.05Tolerance mm

Del. quantity

cm3/1000 strokes : 62.0

Tolerance

cm3/1000 strokes 0.5

Check tolerance

cm3/1000s. 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. 5.0

Rated speed rpm : 325

Rack travel in mm : 8.50

Tolerance mm : +- 0.20

Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 4.5	rack travel mm : 4.00 Rated speed rpm : 1310 Tolerance 1/min : +- 15 rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1460
VIII.5 (1000)	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 76.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : +- 0.20	Rated speed rpm : 325 rack travel mm : 8.50 Tolerance mm : + 0.10
governor spring pre-tension click setting x : 4.00	rack travel mm : 2.00 Rated speed rpm : 470 Tolerance 1/min : + 30 SET IDLE AUXILIARY SPRING
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 30
Rated speed rpm : 1200 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 62.0 Tolerance	TORQUE CONTROL Rated speed rpm : 1200 rack travel mm : 10.45 Tolerance mm : + 0.05
cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5 Spreed Tolerance	Rated speed rpm : 500 rack travel mm : 11.10 Tolerance mm : + 0.10
cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 5.0	Rated speed rpm : 800 rack travel mm : 11.10 Tolerance mm : + 0.10
CONTROL LEVER	+ Rated speed rpm : 1050 + rack travel mm : 10.80 + Tolerance mm : + 0.10
control lever position degree : 104.0 tolerance degree : +- 4.0	
RATED SPEED	FUEL DELIVERY CHARACTERISTICS
rack travel mm : 9.40 Rated speed rpm : 1245 Tolerance 1/min : +- 5	Aneroid pressure hPa : - Rated speed rpm : 800

Del. quantity cm3/1000 strokes : 55.0 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 3.5 Aneroid pressure Rated speed rpm 1050 Del. quantity cm3/1000 strokes 60.0 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 3.5 **BREAKAWAY** 9.40 Rack travel in mm: Rated speed rpm 1245 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 17.80 : + 0.20Tolerance mm Del. quantity cm3/1000 strokes 120.0 Tolerance 5.0 cm3/1000 strokes Check tolerance cm3/1000s.8.0 LOW IDLE 325 Rated speed rpm 8.50 rack travel mm 0.20 Tolerance mm Del. quantity 11.0 cm3/1000 strokes Tolerance cm3/1000 strokes 3.0 Check tolerance 5.0 cm3/1000s. Spreed Tolerance 2.5 cm3/1000 strokes Check tolerance cm3/1000s. 4.5

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 04.05.95 Edition : ISO 4113 Test oil Combination No. : 0 400 874 253 Injection pump Pump designation : PES4A85D410/3RS2799 : -2 : 0 410 884 941 EP type number Governor Governer design. : RSV325...1150A8C2239 : -6L : 0 420 232 582 Governer no. Cust. part No. Customer-spec. information Customer : KHD : BF4L913 Motor : 70.0 Power KW TEST BENCH REQUIREMENTS Inlet line : 3.1 Test oil inlet temp. °C 40 Tolerance °C 2.0 Overflow valve : 1 419 992 198 1.5 Inlet press. bar : Test nozzle holde : 0 681 343 009 assembly Opening pressure

173.5

: +- 1.5

Test Lines : 1 680 750 014

x inside diameter: 2.0 x length mm : 600 REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____ BEGINNING OF DELIVERY Test pressure bar : 26.0 Tolerance bar : + 1.0 Firing order : 1-3-4-2 Phasing : 0-90-180-270 Tolerance : +- 0.50 Check : + 0.75 tolerance °NW BASIC SETTING Rated speed rpm : 1050 Rack travel in mm: 11.55 Tolerance mm : +- 0.05 Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : \leftarrow 0.5 Check tolerance cm3/1000s. 2.5 Spreed Tolerance 3.0 cm3/1000 strokes : Check tolerance 5.0 cm3/1000s. Rated speed rpm : 325 Rack travel in mm : 7.60 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes :

Outside diameter : 6.0

Tolerance bar

		•
Tolerance		+ Rated speed rpm : 1135
cm3/1000 strokes	: +- 3.0	+ Tolerance 1/min : +- 15
Check tolerance		_
cm3/1000s.	: +- 5.0	rack travel mm : 0.85
Spreed	3.3	+ Tolerance mm : + 0.55
Tolerance		Rated speed rpm : 1330
	: 2.5	T Rated speed rpill : 1550
cm3/1000 strokes	: 2.3	Ť
Check tolerance	. ~	+ rack travel mm : 4.00
cm3/1000s.	: 4.5	Rated speed rpm : 1160
		+
		+
(B) SETTING OF I	NJECTION PUMP	+
WITH GOVERNOR		+ LOW IDLE
		4
		1
		+ control lever
GUIDE SLEEVE POS	TTTON	position degree : 70.0
dotte steeve ros.	T 1 TOIA	
Date described		tolerance degree : + 4.0
Rated speed rpm	: 800	†
		+ Setting point w/out bumper spring
Rack travel in m		+
Tolerance mm	: +- 0.20	+ Rated speed rpm : 325
		rack travel mm : 7.10
governor spring		-
pre-tension		+ Testing:
click setting x	• 4 20	1
teres setting x		+ Rated speed rpm : 325
		+ Rated speed rpm : 325 + rack travel mm : 7.60
FILL LOAD DELTIVES	NAT FULL LOSS CTOD	· ·
FULL LUAD DELIVER	RY AT FULL LOAD STOP	+ Tolerance mm : + 0.10
~	4050	1
Rated speed rpm	: 1050	+ rack travel mm : 2.00
Aneroid pressure		+ Rated speed rpm : 465
hPa	: -	+ Tolerance 1/min : + 30
Del. quantity		+
cm3/1000 strokes	: 80.0	+ Rated speed rpm : 100
Tolerance		+
cm3/1000 strokes	· +- 0.5	+ CRT mm min. : > 19.50
Check tolerance		
cm3/1000s.	: +- 2.5	
	. 1 2.5	TORQUE CONTROL
Spreed		T TORQUE CONTROL
Tolerance	7.0	1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
cm3/1000 strokes	: 3.0	+ Rated speed rpm : 1050
Check tolerance		+ rack travel mm : 11.55
cm3/1000s.	: 5.0	+ Tolerance mm : $+$ 0.05
		+
		+ Rated speed rpm : 730
		+ rack travel mm : 12.15
CONTROL LEVER		+ rack travel mm : 12.15 + Tolerance mm : + 0.05
CONTROL LEVER		
		+ Tolerance mm : + 0.05
control lever	• 101.0	Tolerance mm : + 0.05 Rated speed rpm : 885
control lever position degree		Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 11.80
control lever		Tolerance mm : + 0.05 Rated speed rpm : 885
control lever position degree tolerance degree		Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 11.80
control lever position degree		Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 11.80
control lever position degree tolerance degree RATED SPEED	: +- 4.0	Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 11.80
control lever position degree tolerance degree	: +- 4.0 : 10.50	Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 11.80
control lever position degree tolerance degree RATED SPEED rack travel mm	: +- 4.0 : 10.50	Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 11.80
control lever position degree tolerance degree RATED SPEED	: +- 4.0 : 10.50	Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 11.80
control lever position degree tolerance degree RATED SPEED rack travel mm Rated speed rpm	: +- 4.0 : 10.50 : 1095	Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 11.80 Tolerance mm : + 0.10
control lever position degree tolerance degree RATED SPEED rack travel mm Rated speed rpm	: +- 4.0 : 10.50 : 1095	Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 11.80 Tolerance mm : + 0.10

Aneroid pressure

hPa 730 Rated speed rom

Del. quantity cm3/1000 strokes : 0.08

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. 3.5

BREAKAWAY

Rack travel in mm : 10.50 Rated speed rom Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 17.80 rack travel mm Tolerance mm : +- 0.20

Del. quantity

cm3/1000 strokes 125.0

Tolerance

cm3/1000 strokes 5.0

Check tolerance

cm3/1000s. : +-8.0

LOW IDLE

Rated speed rpm 325 rack travel mm 7.60 Tolerance mm 0.10

Del. quantity cm3/1000 strokes

15.0

Tolerance

cm3/1000 strokes 3.0

Check tolerance

cm3/1000s. 5.0

Spreed

Tolerance

cm3/1000 strokes : 2.5

Check tolerance

cm3/1000s. 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.05.95 Test oil : ISO 4113

Combination No. : 0 400 876 274

Injection pump

Pump designation : PES6A95D410RS2471 EP type number : 0 410 896 952

Governor

Governer design. : RSV325...1150A8C707

: -6L

Governer no. : 0 420 232 532

Cust. part No. :

Customer-spec. information

Customer : KHD

Motor : BF6L913C Power KW : 132.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 11.85
Tolerance mm: + 0.05

Del. quantity cm3/1000 strokes : 109.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 6.0

Rated speed rpm : 325

Rack travel in mm: 7.30

Tolerance mm : \leftarrow 0.20

Del. quantity +	-
cm3/1000 strokes : 12.0	rack travel mm : 0.85
Tolerance	- Tolerance mm : +- 0.55
$cm3/1000$ strokes : \leftarrow 3.0	- Rated speed rpm : 1400
Check tolerance	-
cm3/1000s. : + 5.5	- rack travel mm : 4.00
Spreed	- Rated speed rpm : 1300
Tolerance	- 1000
cm3/1000 strokes : 3.5	
Check tolerance	
cm3/1000s. : 5.5	- LOW IDLE
	-
	_
(B) SETTING OF INJECTION PUMP	- control lever
WITH GOVERNOR	- position degree : 71.0
WITH SOVERHOOK	- tolerance degree : +- 4.0
1	- total difference acgree . 4.0
	- Setting point w/out bumper spring
GUIDE SLEEVE POSITION	- occurry points wroat samper spring
40176 055575 100211011	- Rated speed rpm : 325
Rated speed rpm : 800	rack travel mm : 6.80
nated speed (piii : coc	- Tack Cidvec half . 0.00
Rack travel in mm: 0.50	- Testing:
Tolerance mm : + 0.20	- resumg.
	- Rated speed rpm : 325
	- rack travel mm : 7.30
FULL LOAD DELIVERY AT FULL LOAD STOP	- Tolerance mm : +- 0.10
TOLL LOAD DELIVER! AT TOLL LOAD STOP	- Total ance that . The U.TU
Rated speed rpm : 1150	rack travel mm : 2.00
Rated speed rpm : 1130	Rated speed rpm : 615
Aneroid pressure hPa : 700	- Rated speed rpm : 813 - Tolerance 1/min : +- 30
	Toterance Minn : 7- 50
Del. quantity	Detail aread our a 100
cm3/1000 strokes : 109.0	Rated speed rpm : 100
Tolerance +	00T
cm3/1000 strokes : + 1.0	CRT mm min. : > 19.50
Check tolerance	•
cm3/1000s. : + 3.0	TOROUT CONTROL
Spreed +	TORQUE CONTROL
Tolerance + cm3/1000 strokes : 3.5	. Data damand num . 1150
	Rated speed rpm : 1150
Check tolerance	rack travel mm : 11.85
cm3/1000s. : 6.0	Tolerance mm : + 0.05
†	. Bated aroad me . FOO
†	Rated speed rpm : 500 rack travel mm : 11.90
CONTROL LEVED	rack travel mm : 11.90 Tolerance mm : + 0.10
CONTROL LEVER	roterance im : - 0.10
	•
control lever	ANICDOTO / ALTTUDE
position degree : 106.0	ANEROID/ALTITUDE
tolerance degree : +- 4.0 +	COMPENSATOR TEST
OATES ORGES	
RATED SPEED +	CETTING
10.00	SETTING
rack travel mm : 10.80	Dated and down
Rated speed rpm : 1195	Rated speed rpm : 500
Tolerance 1/min : + 5	Pressure hPa : 700 rack travel mm : 11.85
†	
rack travel mm : 4.00 +	Tolerance mm : $+$ 0.05
Rated speed rpm : 1250	
Tolerance 1/min : + 15 +	MEASUREMENT

Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 9.95 : + 0.05
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 93 : 10.20 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 373 : 11.55 : ← 0.05
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure	
hPa	: 700
Rated speed rpm	: 850
Del. quantity	
cm3/1000 strokes	: 105.0
Tolerance cm3/1000 strokes	: + 1.5
Check tolerance	• • • • • • • • • • • • • • • • • • • •
cm3/1000s.	: + 4.0
Spreed	
Check tolerance	7.0
cm3/1000s.	: 7.0
Aneroid pressure	
hPa	: -
Rated speed rpm	: 500
Del. quantity	. (7.0
cm3/1000 strokes Tolerance	: 63.0
cm3/1000 strokes	: +- 1.0
Check tolerance	
cm3/1000s.	: 3.0
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
	: 15.70
Tolonanco mm	• +- 0.20

: +- 0.20

Del. quantity cm3/1000 strokes : 125.0 Tolerance cm3/1000 strokes : +-5.0 Check tolerance cm3/1000s. 8.0 LOW IDLE Rated speed rpm 325 7.30 rack travel mm Tolerance mm : +- 0.20 Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 5.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance

5.5

End of test specification sheet

cm3/1000s.

Tolerance mm

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 14.06.95 : ISO 4113

Combination No. : 0 400 876 275

Injection pump

Pump designation : PES6A95D410RS2471 EP type number : 0 410 896 952

Governor

Governer design. : RSV325...1150A8C674

: -3L

Governer no.

: 0 420 232 543

Cust. part No.

Customer-spec. information

Customer

: KHD

Motor

: BF6L913C

: 132.0

Power KW

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve

: 1 417 413 000

Inlet press. bar :

1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

Test Lines

: 1 680 750 014

Outside diameter :

6.0

x inside diameter:

x length mm :

2.0 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Firing order

: 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance

: + 0.50

Check

tolerance °NW

: + 0.75

BASIC SETTING

1150 Rated speed rpm

11.85 Rack travel in mm:

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 109.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

3.0

Spreed

Tolerance

cm3/1000 strokes :

3.0

Check tolerance

cm3/1000s.

6.0

Rated speed rpm :

325

Rack travel in mm:

7.30

Tolerance mm : +- 0.20

Del. quantity +	
	rack travel mm : 4.00
Tolerance +	Rated speed rpm : 1250
cm3/1000 strokes : $+$ 3.0 $+$	Tolerance 1/min : + 15
Check tolerance +	
cm3/1000s. : + 5.5	rack travel mm : 0.85
Spreed	Tolerance mm : +- 0.55
Tolerance	Rated speed rpm : 1400
cm3/1000 strokes : 3.0	Mateu speed (piii : 1400
	made +massal -massal - (00
Check tolerance	rack travel mm : 4.00
cm3/1000s. : 5.0	Rated speed rpm : 1300
+	
+	
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	LOW IDLE
1	
T	control lever
CUITOE OF EENE DOOTTOON	
GUIDE SLEEVE POSITION +	position degree : 71.0
†	tolerance degree : +- 4.0
Rated speed rpm : 800 +	
+	Setting point w/out bumper spring
Rack travel in mm: 0.50	
Tolerance mm : + 0.20	Rated speed rpm : 325
1	rack travel mm : 7.30
governos coning	rack cravec mm . 7.50
governor spring	Tu - 4.3
pre-tension +	Testing:
click setting x : 4.75 $+$	
+	Rated speed rpm : 325
	rack travel mm : 6.80
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10
Rated speed rpm : 1150	rack travel mm : 2.00
Aneroid pressure	Rated speed rpm : 615
hPa : 700 +	Tolerance 1/min : +- 30
Del. quantity +	
cm3/1000 strokes : 109.0 +	Rated speed rpm : 100
Tolerance +	
cm3/1000 strokes : + 1.0 +	CRT mm min. :> 19.50
Check tolerance	
cm3/1000s. : + 3.0	
Spreed	TORQUE CONTROL
	TORQUE CONTROL
Tolerance	2450
cm3/1000 strokes : 3.0 +	Rated speed rpm : 1150
Check tolerance +	rack tràvel mm : 11.85
cm3/1000s. : 6.0 +	Toterance mm : + 0.05
+	
1	Rated speed rpm : 500
	rack travel mm : 11.90
CONTROL LEVER	Tolerance mm : +- 0.10
CONTROL LEVER	rocer diffe firm
Total lavan	
control lever	
position degree : 106.0 +	ANEROID/ALTITUDE
tolerance degree : + 4.0 +	COMPENSATOR TEST
+	
RATED SPEED +	
1	SETTING
rack travel mm : 10.80	76112HG
· · · · · · · · · · · · · · · · · · ·	Dated around name a FOO
Rated speed rpm : 1195	Rated speed rpm : 500
Tolerance 1/min : +- 5 +	Pressure hPa : 700

rack travel mm Tolerance mm	: 11.85 : + 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 9.90 : +- 0.10
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 160 : 10.55 : + 0.15
Pressure hPa rack travel mm Tolerance mm	: 340 : 11.35 : +- 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity	: 700 : 850
cm3/1000 strokes Tolerance	: 105.0
cm3/1000 strokes Check tolerance	: ← 1.5
cm3/1000s. Spreed	: +- 4.0
Check tolerance cm3/1000s.	: 7.0
Aneroid pressure hPa	: -
Rated speed rpm Del. quantity	: 500
cm3/1000 strokes Tolerance	: 63.0
cm3/1000 strokes Check tolerance	: +- 1.0
cm3/1000s.	: +- 3.0
BREAKAWAY	
Rack travel in mm Rated speed rpm	: 10.80 : 1195

Rated speed rpm	:		100
rack travel mm	:		15.70
Tolerance mm	:	+-	0.20
Del. quantity			405.0
cm3/1000 strokes	:		125.0
Tolerance	_		5.0
cm3/1000 strokes	•	+-	5.0
Check tolerance cm3/1000s.		- -	8.0
	•	. –	5.0

LOW IDLE

Rated speed rpm	:	325
rack travel mm	:	7.30
Tolerance mm	: +-	0.20
Del. quantity		
cm3/1000 strokes	:	19.0
Tolerance		
cm3/1000 strokes	: +-	3.0
Check tolerance		
cm3/1000s.	: +-	5.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.0
Check tolerance		
cm3/1000s.	:	5.0

End of test specification sheet

STARTING FUEL DELIVERY

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 17.06.95 : ISO 4113

Combination No. : 0 400 876 330

Injection pump

Pump designation : PES6A95D410RS2471

EP type number : 0 410 896 952

Governor

Governer design. : RSV325...1400A2C2205

: L

Governer no.

: 0 420 232 445

Cust. part No.

Customer-spec. information

Customer

: KHD

Motor

: PPM BF6L913C

Power KW

: 125.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve

: 1 417 413 000

Inlet press. bar :

1.0

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

1.5

Test Lines

: 1 680 750 014

Outside diameter :

6.0

x inside diameter:

x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0

Tolerance bar : + 1.0

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance

: +- 0.50

2.0

Check

tolerance °NW

: **←** 0.75

BASIC SETTING

Rated speed rpm 1400

Rack travel in mm: 10.95

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes :

89.0

Tolerance

cm3/1000 strokes 1.0

Check tolerance

cm3/1000s.

3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s.

6.0

Rated speed rpm :

325

Rack travel in mm :

7.60

Tolerance mm : \leftarrow 0.20

Del. quantity +	
cm3/1000 strokes : 13.0	rack travel mm : 4.00
Tolerance	Rated speed rpm : 1505
cm3/1000 strokes : +- 3.0 +	Tolerance 1/min : +- 15
Check tolerance	roterance minimate to 15
cm3/1000s. : +- 5.5	rack travel mm : 0.85
Spreed	Tolerance mm : +- 0.55
Tolerance +	
cm3/1000 strokes : 3.5	Rated speed rpm : 1675
Check tolerance	rack travel mm : 4.00
cm3/1000s. : 5.5	
(III)/ (UUU)	Rated speed rpm : 1560
Ţ	
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	LOW IDLE
MIII GOAFUIOU	FOM INTE
\mathbf{I}	
<u> </u>	control lever
GUIDE SLEEVE POSITION	position degree : 72.0
GOIDE SEEENE POSTITOR	tolerance degree : +- 4.0
Rated speed rpm : 800	toterance degree . 1 4.0
Rated speed (pin). Ooo	Setting point w/out bumper spring
Rack travel in mm: 0.50	secend boute wood pomber should
Tolerance mm : + 0.20	Rated speed rpm : 325
Total differential . 4 " 0.20	rack travel mm : 7.60
governor spring	TACK CLAVEL HAIR . F.OO
pre-tension +	Testing:
click setting x : 4.00	restrig.
T 4.00	Rated speed rpm : 325
I	rack travel mm : 7.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10
TOLL FOUND RELIVERY AT TOLL FOUND STOP	Total differentially . Total
T	
Poted speed speed : 1/00	nach thavel mm · 200
Rated speed rpm : 1400	rack travel mm : 2.00
Aneroid pressure +	Rated speed rpm : 655
Aneroid pressure hPa : 700	
Aneroid pressure hPa : 700 + Del. quantity +	Rated speed rpm : 655 Tolerance 1/min : +- 30
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0	Rated speed rpm : 655
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance	Rated speed rpm : 655 Tolerance 1/min : +- 30 Rated speed rpm : 100
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 655 Tolerance 1/min : +- 30
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Rated speed rpm : 655 Tolerance 1/min : +- 30 Rated speed rpm : 100
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed	Rated speed rpm : 655 Tolerance 1/min : +- 30 Rated speed rpm : 100
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance	Rated speed rpm : 655 Tolerance 1/min : +- 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 655 Tolerance 1/min : +- 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm : 655 Tolerance 1/min : +- 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 655 Tolerance 1/min : +- 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm : 655 Tolerance 1/min : +- 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : +- 0.05 Rated speed rpm : 500
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 6.0	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.00
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm : 655 Tolerance 1/min : +- 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : +- 0.05 Rated speed rpm : 500
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 6.0	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.00
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.00 Tolerance mm : + 0.10
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 CONTROL LEVER control lever position degree : 108.0	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.00 Tolerance mm : + 0.10
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.00 Tolerance mm : + 0.10
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 CONTROL LEVER control lever position degree : 108.0 tolerance degree : + 4.0	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.00 Tolerance mm : + 0.10
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 CONTROL LEVER control lever position degree : 108.0	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.00 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 CONTROL LEVER control lever position degree : 108.0 tolerance degree : + 4.0 RATED SPEED	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.00 Tolerance mm : + 0.10
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 CONTROL LEVER control lever position degree : 108.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 9.90	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.00 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST
Aneroid pressure hPa : 700 Del. quantity cm3/1000 strokes : 89.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 CONTROL LEVER control lever position degree : 108.0 tolerance degree : + 4.0 RATED SPEED	Rated speed rpm : 655 Tolerance 1/min : + 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL Rated speed rpm : 1400 rack travel mm : 10.95 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 11.00 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST

rack travel mm Tolerance mm	: 11.00 : +- 0.10
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 650 : 10.25 : + 0.05
Rated speed rpm	: 650
Pressure hPa rack travel mm Tolerance mm	: 180 : 10.55 : +- 0.05
Pressure hPa rack travel mm Tolerance mm	: 220 : 10.75 : +- 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa	: 700
Rated speed rpm Del. quantity cm3/1000 strokes	: 850 : 81.0
Tolerance cm3/1000 strokes	: +- 1.5
Check tolerance cm3/1000s.	: +- 4.0
Aneroid pressure	
hPa Rated speed rpm	: 650
Del. quantity cm3/1000 strokes	: 65.0
Tolerance cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s.	: +- 3.0
BREAKAWAY	
Rack travel in mm	
Rated speed rpm	: 1445 : +- 5
	: +- 5

:	120.0
: -	+- 5 . 0
; -	⊢ 8.0
	•

LOW I	.Di	LE
-------	-----	----

Rated speed rpm	:		325
rack travel mm	:		7.60
Tolerance mm	:	+-	0.20
Del. quantity			
cm3/1000 strokes	:		13.0
Tolerance			
cm3/1000 strokes	:	+-	3.0
Check tolerance			
cm3/1000s.	:	+-	5.5
Spreed			
Tolerance			
cm3/1000 strokes	:		3.5
Check tolerance			
cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 17.06.95 : ISO 4113

Combination No. : 0 400 876 387

Injection pump

Pump designation : PES6A95D41DRS2625 EP type number : 0 410 896 926

Governor

Governer design. : RSV375...1200A5C2253

: -4L

Governer no.

: 0 420 232 560

Cust. part No.

Customer-spec. information

Customer

: KHD

Motor

: BF6L913C

Power KW

: 125.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C

Tolerance °C

2.0

: 1 417 413 000

Inlet press. bar :

Overflow valve

1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

Test lines

: 1 680 750 014

Outside diameter :

6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Firing order

: 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance

: + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm 1200

11.15 Rack travel in mm: Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes :

86.0

Tolerance

cm3/1000 strokes 0.5 : +-

Check tolerance

cm3/1000s. : +-2.5

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s.

6.0

Rated speed rpm :

375

Rack travel in mm :

6.00

Tolerance mm : +- 0.20

Del. quantity	+	
cm3/1000 strokes	: 14.0	rack travel mm : 4.00
Tolerance	1	Rated speed rpm : 1275
cm3/1000 strokes	: +- 3.0 \ \frac{1}{2}	Tolerance 1/min : + 15
Check tolerance	1	
	: + 5.5	rack travel mm : 0.85
Spreed	1	Tolerance mm : + 0.55
Tolerance	1	Rated speed rpm : 1440
cm3/1000 strokes	: 3.5	nated opeca (piii : 1770
Check tolerance	. 5.5	rack travel mm : 4.00
cm3/1000s.	: 5.0	Rated speed rpm : 1295
		nated opeca i pile 1 1275
	1	
(B) SETTING OF INJ	ECTTON PUMP	
WITH GOVERNOR	1	LOW IDLE
	1	
	1	
		control lever
GUIDE SLEEVE POSIT	TION 1	position degree : 65.0
	1	tolerance degree : + 4.0
Rated speed rpm	: 800	100000000000000000000000000000000000000
TOTAL SPECIAL FORM	1	Setting point w/out bumper spring
Rack travel in mm	: 0.50	TTTT PTTTT NOW DOWNOOL ON HIS
Tolerance mm		Rated speed rpm : 375
TO COT SITUO TEMP	1	rack travel mm : 6.00
governor spring	1	1 4010 01 4000 111111
pre-tension	4	Testing:
click setting x	: 3.00	resting.
cereic december x	. 3.33	Rated speed rpm : 375
		rack travel mm : 5.55
FULL LOAD DELIVERY	AT FULL LOAD STOP	Tolerance mm : + 0.15
TOLL COND DELEVENT	1 1022 2000 0101	Total and and
Rated speed rpm	: 1200	rack travel mm : 2.00
Aneroid pressure	. (200	Rated speed rpm : 465
•	: 800	Tolerance 1/min : +- 30
Del. quantity	. 000	forciulies triming
cm3/1000 strokes	. 86.0	Rated speed rpm : 100
Tolerance	. 55.5	Nated Speed (pill : 100
cm3/1000 strokes	: + 0.5	CRT mm min. : > 19.50
Check tolerance	1	
cm3/1000s.	: +- 2.5	
Spreed	1	TORQUE CONTROL
Tolerance	$\underline{1}$	101/102 300/1102
cm3/1000 strokes	: 3.5	Dimension a mm : 1.10
Check tolerance	. 3.3	Rated speed rpm : 1200
cm3/1000s.	: 6.0	rack travel mm : 11.15
Chip/ 10003.	· 0.5	Tolerance mm : + 0.05
	\sum_{i}	TOLEI dirice iiaii
		Rated speed rpm : 500
CONTROL LEVER	I	rack travel mm : 12.05
CONTROL LEVER	I	Tolerance mm : + 0.05
control lever	Ţ	rocerance man . " U.U.
	: 98.0	Rated speed rpm : 1030
position degree		rack travel mm : 10.50
tolerance degree	: +- 4.0	Tolerance mm : + 0.10
DATED ODEEN	Ť	roterance man : TO U. 10
RATED SPEED	†	
manda demonstrati and	. 10.10	
rack travel mm	: 10.10	
Rated speed rpm :	1245	
Tolerance 1/min :	: +- 5 +	

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 800
rack travel mm : 12.05
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 10.55
Tolerance mm : +- 0.05

Rated speed rpm : 500

Pressure hPa : 280 rack travel mm : 11.25 Tolerance mm : + 0.15

Pressure hPa : 350 rack travel mm : 11.75 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 800 Rated speed rpm : 800

Del. quantity

cm3/1000 strokes : 90.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.5

Aneroid pressure

hPa : -Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 56.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

BREAKAWAY

Rack travel in mm: 10.10

Rated speed rpm : 1245
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

100 Rated speed rpm rack travel mm 16.50 Tolerance mm : + - 0.20Del. quantity cm3/1000 strokes : 125.0 Tolerance cm3/1000 strokes 5.0 Check tolerance cm3/1000s. 8.0 : +--

LOW IDLE

Rated speed rpm 375 6.00 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes 14.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 5.5 : +--Spreed Tolerance 3.5 cm3/1000 strokes : Check tolerance 5.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 22.05.95 : ISO 4113 Test oil

Combination No. : 0 402 736 887

Injection pump

Pump designation : PES6P120A120RS7369

EP type number : 0 412 726 935

Governor

Governer design. : RQV400...1400PA1211K

: D 421 815 464 Governer no.

Cust. part No. : 3929689

Customer-spec. information Customer : CDC Motor : 6BTA-A

Power KW : 160.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0

Tolerance bar : +-0.1

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

: 1 680 750 015 Test lines

Outside diameter : 6.0

x inside diameter : 3.0

600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance °NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 14.45

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 180.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

: + 4.0 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

12.0 cm3/1000s.

Del. quantity

16.5 cm3/1000 strokes :

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance +	
cm3/1000s. : +- 5.0 +	Testing:
Spreed	
Tolerance +	Rated speed rpm : 420
cm3/1000 strokes : 4.0	rack travel mm : 6.40
Check tolerance	Tolerance mm : + 0.20
cm3/1000s. : 8.0	
1	Rated speed rpm : 300
1	
(B) SETTING OF INJECTION PUMP	CRT mm min. :> 9.10
WITH GOVERNOR +	
+	Rated speed rpm : 425
+	
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
1	
Rated speed rpm : 1300 +	Rated speed rpm : 1300
Aneroid pressure	rack travel mm : 14.45
hPa : 1500 +	Tolerance mm : + 0.05
Del. quantity	
cm3/1000 strokes : 180.0	Rated speed rpm : 800
Tolerance	Rated speed rpm : 800 rack travel mm : 12.00
cm3/1000 strokes : + 1.0 +	Rated speed rpm : 800 rack travel mm : 12.00 Tolerance mm : + 0.20
Check tolerance	
cm3/1000s. : + 4.0 +	Rated speed rpm : 1100
Spreed	rack travel mm : 13.50
Tolerance	Tolerance mm : + 0.20
cm3/1000 strokes : 8.0	10001 01100 1121
Check tolerance	
cm3/1000s. : 12.0	ANEROID/ALTITUDE
	COMPENSATOR TEST
<u> </u>	
CONTROL LEVER	SETTING
control lever	Rated speed rpm : 1300
position degree : 117.5	Pressure hPa : 1500
tolerance degree : +- 6.0 +	1,000
total arise degree .	MEASUREMENT
RATED SPEED	The test test test t
11111	Pressure hPa : -
rack travel mm : 13.40	Rated speed rpm : 1300
Rated speed rpm : 1450	rack travel mm : 9.50
Tolerance 1/min : + 25	Tolerance mm : + 0.20
-	
rack travel mm : 5.50	Rated speed rpm : 1300
Rated speed rpm : 1650	
The state of the s	Pressure hPa : 965
rack travel mm : 0.50	rack travel mm : 13.20
Tolerance mm : +- 0.50 +	Tolerance mm : + 0.30
Rated speed rpm : 1850 +	TO COT GITTO CIMI
	Pressure hPa : 390
1	rack travel mm : 10.80
	Tolerance mm : +- 0.20
LOW IDLE	7 3 201 4110 11111
1	START CUT-OUT
control lever	
position degree : 74.5	Rated speed rpm : > 100
tolerance degree : + 6.0	Rated speed rpm : < 340
10.10. disto gotti on 1	TO TO

Check	
speed 1/min	: > 80
Check speed 1/min	: < 350
speed (viiit)	. \ 330
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa	: 1500
Rated speed rpm Del. quantity	: 800
cm3/1000 strokes	: 122.0
Tolerance cm3/1000 strokes	: + 3.0
Check tolerance	
cm3/1000s. Spreed	: +- 6.0
Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance cm3/1000s.	: 12.0
Aneroid pressure	; -
Rated speed rpm	1300
Del. quantity	70.5
cm3/1000 strokes Tolerance	: 79.5
cm3/1000 strokes	: +- 2.0
Check tolerance	
cm3/1000s.	: ← 4.0
BREAKAWAY	
Rack travel in mm	: 13.40
Rated speed rpm	: 1450
Tolerance 1/min	: +- 25
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
rack travel mm	: 12.80
Tolerance mm Del. quantity	: +- 0.50
cm3/1000 strokes	: 157.0
Tolerance	· · · · · · · · · · · · · · · · · · ·
cm3/1000 strokes Check tolerance	: +- 20.0
cm3/1000s.	: ← 25.0

Del. quantity		
cm3/1000 strokes	:	16.5
Tolerance		
cm3/1000 strokes	: +-	3.0
Check tolerance		
cm3/1000s.	: +-	5.0
Spreed		
Tolerance		
cm3/1000 strokes	:	4.0
Check tolerance		
cm3/1000s.	:	8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 12.05.95 : ISO 4113

Combination No. : 9 400 030 696

Injection pump

Pump designation : PES6A95D32D/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1250A0C826R

Governer no. : 9 420 034 700

Cust. part No. :

Customer-spec. information

Customer : CUMMINS

Motor

: 6BT - 165 PS

TEST BENCH REQUIREMENTS

Inlet line : 1.1

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar :

1.5

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

207.0

Tolerance bar : +- 3.0

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0

x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm

2.85

Tolerance mm

: + - 0.05

Check

tolerance mm

: + 0.10

Rack travel in mm: 10.50

Firing order

Tolerance mm : +- 1.50

: 1-5- 3- 6- 2-

Phasing

: 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 12.60

Tolerance mm : \leftarrow 0.05

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE POSITION

Rated speed rpm : 800

Rack travel in mm: 0.80

Tolerance mm : \leftarrow 0.20

governor spring pre-tension click setting x: 2.50 CONTROL LEVER control lever position degree : 50.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.60 Rated speed rpm : 1316 Tolerance 1/min : +-4.00 rack travel mm : Rated speed rpm : 1410 Tolerance 1/min : +- 15 rack travel mm : 1.20 Tolerance mm : + 0.50 Rated speed rpm : 1470 LOW IDLE control lever position degree : 25.0 tolerance degree : +- 4.0 Testing: 475 Rated speed rpm : rack travel mm : 5.70 Tolerance mm : + 0.10 2.00 rack travel mm : Rated speed rpm : Tolerance 1/min : +- 30 Rated speed rpm : 100 CRT mm min. : > 19.50 TORQUE CONTROL 1250 Rated speed rpm : rack travel mm : 12.60 : +- 0.05 Tolerance mm

Rated speed rpm : 800 rack travel mm : 12.7 12.70 : +- 0.05 Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm : 800 Pressure hPa : 800 : 12.70 rack travel mm : +- 0.05 Tolerance mm MEASUREMENT Rated speed rpm : 800 Pressure hPa 10.40 rack travel mm : +- 0.05 Tolerance mm Pressure hPa : 500 rack travel mm : 11.30 Tolerance mm : + 0.10 BREAKAWAY Rack travel in mm: 11.60 Rated speed rpm : 1316 Tolerance 1/min : +-STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : +- 0.75

End of test specification sheet

Rated speed rpm : rack travel mm :

Tolerance mm : + 0.10

500 12.70

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.10.95 Test oil : ISO 4113

Combination No. : 0 403 244 049

Injection pump

Pump designation : PES4MW100/320RS1521

EP type number : 0 413 204 020

Governor

Governer design. : RQ400/1200MW149 Governer no. : 0 420 082 075

Cust. part No. : 51.11103-7468

Customer-spec. information

Customer , : MAN

Motor : DO824 LFLO4

Power KW : 81.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 008

Outside diameter : 8.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 5.05 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : \leftarrow 0.50

Check

tolerance °NW : +- 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 12.30 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 135.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0

Spreed

Tolerance cm3/1000 strokes : 4.0	<u> </u>
	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. : 7.5	Rated speed rpm : 600
Rated speed rpm : 400	Rack travel in mm : 16.50 Tolerance mm : +- 0.80
Rack travel in mm: 4.80 Tolerance mm: +- 0.20	
Del. quantity - cm3/1000 strokes : 23.0 - Tolerance -	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 2.0 - Check tolerance	Rated speed rpm : 900 Aneroid pressure hPa : 800
cm3/1000s. : +- 4.5 Spreed	Del. quantity cm3/1000 strokes : 135.0
Tolerance - cm3/1000 strokes : 3.5 -	Tolerance : +- 1.0
Check tolerance - cm3/1000s. : 5.5 -	Check tolerance cm3/1000s. : +- 4.0
(B) SETTING OF INJECTION PUMP -	Spreed Tolerance cm3/1000 strokes : 4.0
WITH GOVERNOR	Check tolerance cm3/1000s. : 7.5
GUIDE SLEEVE TRAVEL	
Rated speed rpm : 400 - guide sleeve	CONTROL LEVER
travel mm : 2.75	control lever
Tolerance mm : +- 0.20	position degree : 98.0 tolerance degree : +- 4.0
Rated speed rpm : 1257 guide sleeve	RATED SPEED
travel mm : 7.47 Tolerance mm : + 0.15	rack travel mm : 11.30 Rated speed rpm : 1253
Rated speed rpm : 1200 guide sleeve	Tolerance 1/min : + 8
travel mm : 7.00 - Tolerance mm : + 0.10 -	rack travel mm : 4.00 Rated speed rpm : 1335
Rated speed rpm : 492 guide sleeve -	Tolerance 1/min : +- 15 rack travel mm : 0.50
travel mm : 4.36 - Tolerance mm : + 0.10 -	Tolerance mm : +- 0.50 Rated speed rpm : 1450
Rated speed rpm : 650 - guide sleeve	
travel mm : 7.00 - Tolerance mm : + 0.10 -	LOW IDLE
Rated speed rpm : 1420 guide sleeve	- - control lever - position degree : 73.0
travel mm : 11.50 Tolerance mm : + 0.50	tolerance degree : +- 4.0
+	- Testing: -
·	

Rated speed rpm rack travel mm	: 4.80	+ Del. quantity cm3/1000 strokes : 129.0
Tolerance mm	: + 0.10	+ Tolerance + cm3/1000 strokes : +- 2.0
Rated speed rpm	: 300	+ Check tolerance
CRT mm min.	: > 6.50	cm3/1000s. : + 5.0 Spreed
		+ Tolerance + cm3/1000 strokes : 6.0
TORQUE CONTROL		Check tolerance cm3/1000s. : 9.0
Rated speed rpm	: 900	T (11137 10003:
rack travel mm	: 12.30	+ Aneroid pressure
Tolerance mm	: ← 0.05	+ hPa : 800 + Rated speed rpm : 650
Rated speed rpm	: 1200	+ Del. quantity
rack travel mm Tolerance mm	: 12.30	+ cm3/1000 strokes : 140.0
Tolerance mm	: +- 0.10	Tolerance
Dotal avail man	. (50	+ cm3/1000 strokes : +- 2.0
Rated speed rpm	: 650 : 12.30	+ Check tolerance + cm3/1000s. : + 5.0
rack travel mm Tolerance mm	: +- 0.10	+ 0.0000.
		Aneroid pressure
ANEDOTO /AL TITUDE		
ANEROID/ALTITUDE COMPENSATOR TEST		+ Rated speed rpm : 500 + Del. quantity
COMPENSATOR TEST		cm3/1000 strokes : 93.0
		† Tolerance
SETTING		+ cm3/1000 strokes : +- 1.0
Rated speed rpm	: 500	+ Check tolerance + cm3/1000s. : +- 3.0
Pressure hPa		T (1115) (10005. : +- 3.0
rack travel mm		
Tolerance mm	: ← 0.05	BREAKAWAY
MEASUREMENT		<u>†</u>
MEMOUREMENT		Rack travel in mm : 11.30
Pressure hPa	-	Rated speed rpm : 1253
Rated speed rpm		+ Tolerance 1/min : +- 8
Tolerance mm	: +- 0.10	†
Rated speed rpm	: 500	
	400	STARTING FUEL DELIVERY
Pressure hPa rack travel mm	: 400 : 1.60	Rated speed rpm : 100
Tolerance mm	: + 0.10	Del. quantity
		+ cm3/1000 strokes : 110.0
Pressure hPa	: 130	+ Tolerance
rack travel mm Tolerance mm	: 0.30 : +- 0.10	+ cm3/1000 strokes : +- 5.0 + Check tolerance
roterance man	: +- 0.70	+ cm3/1000s. : +- 8.0
		+
		+
FUEL DELIVERY CHA	ARACTERISTICS	
	· · - 	LOW IDLE
Aneroid pressure	. 000	t Dated speed pro . 400
hPa Rated speed rpm	: 800 : 1200	+ Rated speed rpm : 400 + rack travel mm : 4.80
nated speed (pill	. ,	Tolerance mm : + 0.20

Del. quantity		
cm3/1000 strokes	:	23.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 01.12.95 Test oil : ISO 4113

Combination No. : 0 402 848 300

Injection pump

Pump designation : PE8P12OA52OLS8518 EP type number : 0 412 828 201

Governor

Governer design. : RQV300...1150PA1039

: -3K

Governer no. : 0 421 815 980

Cust. part No. : 51.11103-7492

Customer-spec. information

Customer : MAN

Motor : D 2848 LE 403

Power KW : 588.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 078

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 170 Tolerance l/h : +- 15.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 5.65
Tolerance mm : +- 0.05

Check . +- 0.0

CHECK

tolerance mm : +- 0.10

Rack travel in mm : 13.00 Tolerance mm : +- 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180

: -225-270-315 Tolerance : +- 0.30

Check

tolerance NW : + 0.50

Start of delivery blocking

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 13.70 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 337.0

		+ Tolerance mm : +- 0.50
Tolerance cm3/1000 strokes	: + 1.0	
Observation And Section 2		+ GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: +- 4.0	Rated speed rpm : 1327
Spreed		Rack travel in mm: 12.70
Tolerance cm3/1000 strokes	: 8.0	+ Tolerance mm : +- 1.30
Check tolerance		FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 12.0	+
Rated speed rpm	: 300	+ Rated speed rpm : 1150 + Aneroid pressure + hPa : 2000
Rack travel in ma	n: 5.00	+ Del. quantity
Tolerance mm	: +- 0.20	- cm3/1000 strokes : 337.0
Del. quantity		Tolerance
cm3/1000 strokes	: 49.0	+ cm3/1000 strokes : +- 1.0
Tolerance cm3/1000 strokes	• +- 3.0	+ Check tolerance + cm3/1000s. ; + 4.0
Check tolerance		Spreed
cm3/1000s.	: ← 8.0	Tolerance
Spreed		+ cm3/1000 strokes : 8.0
Tolerance cm3/1000 strokes	: 8.0	+ Check tolerance + cm3/1000s. : 12.0
Check tolerance	. 0.0	+
cm3/1000s.	: 12.0	+
		CONTROL LEVER
(B) SETTING OF IN	NECTION PUMP	- CONTROL ELVER
WITH GOVERNOR		- control lever
		+ position degree : 118.0
GUIDE SLEEVE TRAV	/EL	tolerance degree : + 4.0 RATED SPEED
Rated speed rpm	: 300	T RATED SPEED
guide sleeve		+ rack travel mm : 12.70
travel mm	: 1.61	Rated speed rpm : 1195
Tolerance mm	: + 0.20	† Tolerance 1/min : +- 5
Rated speed rpm	: 1206	rack travel mm : 4.00
guide sleeve		+ Rated speed rpm : 1325
travel mm	: 9.84	† Tolerance 1/min : +- 15
Tolerance mm	: +- 0.15	rack travel mm : 0.50
Rated speed rpm	: 797	+ Tolerance mm : +- 0.50
guide sleeve		+ Rated speed rpm : 1400
travel mm	: 6.36	†
Tolerance mm	: + 0.25	İ
Rated speed rpm guide sleeve	: 460	LOW IDLE
travel mm	: 3.78	+
Tolerance mm	: +- 0.25	- control lever
Data damas dama	. 1500	+ position degree : 71.0
Rated speed rpm guide sleeve	: 1500	tolerance degree : +- 4.0
travel mm	: 13.50	† Testing:

		+		
Rated speed rpm	: 300	1		
rack travel mm Tolerance mm	: 5.00	+	START CUT-OUT	
Tolerance mm	: +- 0.10	+		. 470
Data al	- 200	†	Rated speed rpm	: > 170
Rated speed rpm	: 200	Ī	Rated speed rpm	: < 230
'CRT mm min.	: > 6.90	Ī	Check	
	• • • • • • • • • • • • • • • • • • • •	1	speed 1/min	: > 150
Rated speed rpm	: 340	+	Check	
		+	speed 1/min	: < 240
TODOUE CONTROL		+		
TORQUE CONTROL		I	FUEL DELIVERY CHA	ARACTERISTICS
Rated speed rpm	: 1150	<u></u>	TOLL VELIVERY ON	WHO TENTO I TO
rack travel mm	: 13.70	1	Aneroid pressure	
Tolerance mm	: ← 0.05	+	hPa	: 2000
	4000	+	Rated speed rpm	: 1000
Rated speed rpm	: 1000	†	Del. quantity cm3/1000 strokes	. 7// 0
Rated speed rpm rack travel mm Tolerance mm	• +- 0.10	Ī	Tolerance	: 344.0
TOTEL WITCE HAIT	0.10	I	cm3/1000 strokes	: +- 4.N
Rated speed rpm	: 850	1	Check tolerance	
rack travel mm	: 12.60	+	cm3/1000s.	
Tolerance mm	: +- 0.10	+		
~	450	†	Aneroid pressure	2222
Rated speed rpm	: 650	†	hPa	: 2000
rack travel mm Tolerance mm	• + 0.10	Ī	Rated speed rpm Del. quantity	: 650
roter ance man	0.10	\downarrow	cm3/1000 strokes	: 321.0
			Tolerance	
ANEROID/ALTITUDE		+	cm3/1000 strokes	: +- 4.0
COMPENSATOR TEST		+	Check tolerance	
		+	cm3/1000S.	: ← 8.0
SETTING		†	Aneroid pressure	
25117140		I	hPa	: 2000
Rated speed rpm	: 1150	4	Rated speed rpm	
Pressure hPa	: 2000	+	Del. quantity	
rack travel mm	: 13.70	+	cm3/1000 strokes	: 299.0
Tolerance mm	: +- 0.05	+	Tolerance	
MEACHOEMENT		†	cm3/1000 strokes	: +- 4.0
MEASUREMENT		Ī	Check tolerance cm3/1000s.	: +- 8.0
Pressure hPa	: -	I	CIID7 (0005.	0.0
Rated speed rpm	: 1150	1	Aneroid pressure	
rack travel mm	: 7.70	+	hPa	: -
Tolerance mm	: ← 0.15	+	Rated speed rpm	: 500
5 4 1 2 224 222	4450	†	Del. quantity	. 405 0
Rated speed rpm	: 1150	†	cm3/1000 strokes Tolerance	: 185.0
Pressure hPa	: 220	I	cm3/1000 strokes	: +- 1.0
rack travel mm		I	Check tolerance	1.0
Tolerance mm	: → 0.05	+	cm3/1000s.	: +- 4.0
		+		
Pressure hPa	: 1050	+	DDEALANAY	
rack travel mm	: 11.90 : + 0.15	†	BREAKAWAY	
Tolerance mm	: 0.15	Ī		

Rack travel in mm :

12.70

Rated speed rpm : 1195 Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm 100 20.50 rack travel mm : +- 0.50 Tolerance mm

Del. quantity

cm3/1000 strokes : 130.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance cm3/1000s.

: + 19.0

LOW IDLE

300 Rated speed rpm 5.00 rack travel mm Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 49.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 8.0 Spreed Tolerance 8.0 cm3/1000 strokes : Check tolerance 12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 11, 12, 95 : ISO 4113

Combination No. : 0 400 076 960

Injection pump

Pump designation : PES6M55C32ORS179 EP type number : 0 410 056 985

Governor

Governer design. : RSF315/2000M65-6 Governer no. : 0 420 021 161

Cust. part No.

Customer-spec. information

: MB-PKW Customer : 0M603A D35 GW Motor

Power KW : 100.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C 40 : +- 2.0 Tolerance *C

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

: 1 688 901 111 assembly

Opening pressure

148.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 : 600 x length mm

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : +- 1.0

Prestroke mm 1.75 Tolerance mm : + 0.05

Check

: + 0.10tolerance mm

Rack travel in mm: 21.00 : +- 1.00 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Start of delivery blocking

*NW after s.o.d. : 17.00 Tolarence : **←** 0.20

Check

: +- 0.30 tolerance "NW

Barrel no. : 1

BASIC SETTING

Rated speed rpm 1000

Rack travel in mm : 13.65 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 58.5

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance cm3/1000s. : + 1.5	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 2700
Tolerance +	Mateu opecu (piii : E/oo
cm3/1000 strokes : 2.5	SET IDLE CONTROL LEVER POSITION
Check tolerance cm3/1000s. : 3.0	Rated speed rpm : 1000
Rated speed rpm : 290	CRT mm max. : 1.95
Rack travel in mm: 6.30	
Tolerance mm : +- 0.10	LOW IDLE
Del. quantity + cm3/1000 strokes : 10.0 +	
Tolerance +	control lever
cm3/1000 strokes : + 0.5 + Spreed	position degree : 10.0 tolerance degree : +- 2.0
Tolerance + cm3/1000 strokes : 1.0 +	Setting point w/out bumper spring
tillo tobb strokes . T.b	Rated speed rpm : 290
(B) SETTING OF INJECTION PUMP	rack travel mm : 6.30
WITH GOVERNOR	SET IDLE AUXILIARY SPRING
	Rated speed rpm : 400
IDLE STAGE	rack travel mm : 4.80
1	Tolerance mm : +- 0.10
Rack travel in mm: 5.50	Load pick-up
Tolerance mm : + 0.25	Rated speed rpm : 200
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. :> 7.50
Rated speed rpm : 1000 Ref. pressure	Rated speed rpm : 1000
ALDA / ADA hPa : 1900	CRT mm max. : 1.95
Del. quantity	made through the second of 70
cm3/1000 strokes : 58.5	rack travel mm : 6.30 Rated speed rpm : 290
cm3/1000 strokes : + 0.5	
Check tolerance + 1.5 + 1.5	
Spreed	TORQUE CONTROL
Tolerance + cm3/1000 strokes : 2.5 +	Rated speed rpm : 1000
Check tolerance	
cm3/1000s. : 3.0	rack travel mm : 13.65 Tolerance mm : +- 0.05
	Rated speed rpm : 1600
RATED SPEED +	rack travel mm : 12.85 Tolerance mm : +- 0.10
†	Tolerance mm : +- 0.10
control lever	Rated speed rpm : 2000
position degree : 50.0	rack travel mm : 11.70 Tolerance mm : + 0.10
rack travel mm : 6.50	roterance mm : +- U.TU
Rated speed rpm : 2350	

	-	}
ADJUSTMENT TEST	ADA/ALDA	Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 1000
SETTING	-	Del. quantity
Rated speed rpm	: 1000	cm3/1000 strokes : 41.5 Tolerance
Ref. pressure ALDA / ADA hPa	: 1600	cm3/1000 strokes : + 0.5 Check tolerance
rack travel mm Tolerance mm	: -0.40 : +- 0.20	cm3/1000S. : +- 1.5 Spreed
MEASUREMENT		Tolerance cm3/1000 strokes : 2.5
	4000	Check tolerance
Rated speed rpm Ref. pressure	: 1000	cm3/1000s. : 3.0
ALDA / ADA hPa rack travel mm	: 1100 - : -2.95 -	
Tolerance mm	: + 0.10	HIGH IDLE
Rated speed rpm Ref. pressure	: 1000	Ref. pressure - ALDA / ADA hPa : 1900
ALDA / ADA hPa	: 750	- ALDA / ADA IIFA . 1700
rack travel mm Tolerance mm	: -4.80 : + 0.20	STARTING FUEL DELIVERY
	-	Rated speed rpm : 100
FUEL DELIVERY CHA	ARACTERISTICS	rack travel mm : 20.10 - Del. quantity
Ref. pressure		- cm3/1000 strokes : 52.0 - Spreed
ALDA / ADA hPa	: 1900	- Tolerance
Rated speed rpm Del. quantity	: 1600	- cm3/1000 strokes : 6.0 - Check tolerance
cm3/1000 strokes Tolerance	: 55.8	cm3/1000s. : 6.0
cm3/1000 strokes	: + 0.8	
Check tolerance cm3/1000s.	: + 1.8	
Spreed Tolerance		LOW IDLE
cm3/1000 strokes	: 2.5	Del. quantity
Check tolerance cm3/1000s.	: 3.0	- cm3/1000 strokes : 11.8 - Check tolerance
	1	- cm3/1000s. : +- 2.3 - Spreed
Ref. pressure ALDA / ADA hPa	: 1900	- Check tolerance
Rated speed rpm Spreed	: 2000	- cm3/1000s. : 1.5
Del. quantity cm3/1000 strokes	: 51.0	
Tolerance	}	-
cm3/1000 strokes Check tolerance	+	- Grad : > 37.00
cm3/1000S. Spreed	: ← 2.0	- - Grad : < 35.50
Tolerance	: 2.5	-
cm3/1000 strokes Check tolerance	+	SETTING PNEUMATIC FAST IDLE (ELA)
cm3/1000s.	: 3.0	•

control lever position degree 10.0 tolerance degree : +-2.0 SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR) control lever 10.0 position degree tolerance degree : Rated speed rpm 315 Rack travel in mm: 12.50 Tolerance mm : +- 0.70 Del. quantity 48.0 cm3/1000 strokes : Del. quantity cm3/1000 strokes : 48.0 Tolerance cm3/1000 strokes 4.0 Tolerance cm3/1000 strokes 4.0 Current A 1.80 control lever position degree 50.0 Rated speed rpm 2700 0.50 Rack travel in mm: Tolerance mm Current short-3.00 duration A Starting test Rated speed rpm 100 Current A 1.80 **ADJUSTMENT** control lever position degree 50.0 TESTING PNEUMATIC SHUTOFF DEVICE 290 Rated speed rpm End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 11.12.95

Test oil

: ISO 4113

Combination No. : 0 400 076 961

Injection pump

Pump designation : PES6M55C32ORS157-1

EP type number : 0 410 056 991

Governor

Governer design. : RSF315/2300M65-5

Governer no. : 0 420 021 145

Cust. part No. :

Customer-spec. information

Customer : MB-PKW

Motor

: OM6O3A-ECE

Power KW

: 110.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly

: 1 688 901 111

Opening pressure

: 148.5

Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter:

2.0

x length mm : 600

D16

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm

: 2.25 : +- 0.05

Check

tolerance mm : + - 0.10

Rack travel in mm: 21.00

Tolerance mm : + 1.00

Firing order

: 1-5-3-6-2-

Phasing

: 0-60-120-180-240

: -300

Start of delivery blocking

"NW after s.o.d. : 19.50

: + - 0.20Tolerance

Check

tolerance $^{\circ}NW$: +- 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 13.95

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 53.0

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance cm3/1000s. : + 1.5	rack travel mm : ±0.50 Tolerance mm : + 0.50
Spreed Tolerance cm3/1000 strokes : 2.5	Rated speed rpm : 2950
Check tolerance	SET IDLE CONTROL LEVER POSITION
cm3/1000s. : 3.0	Rated speed rpm : 1000
Rated speed rpm : 290	CRT mm max. : 1.75
Rack travel in mm: 5.40 + Tolerance mm: + 0.10 + Del. quantity +	LOW IDLE
cm3/1000 strokes : 7.0 + Tolerance +	control lever
cm3/1000 strokes : + 0.5 + Spreed + Tolerance +	position degree : 10.0 tolerance degree : + 2.0
cm3/1000 strokes : 1.0	Setting point w/out bumper spring Rated speed rpm : 290 rack travel mm : 5.40
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 360 rack travel mm : 4.30 Tolerance mm : +- 0.10
Rack travel in mm: 6.50 Tolerance mm: + 0.10	rack travel mm : 2.50 Rated speed rpm : 560 Tolerance 1/min : + 50
FULL LOAD DELIVERY AT FULL LOAD STOP	Load pick-up
Rated speed rpm : 1000 + Ref. pressure +	Rated speed rpm : 200
ALDA / ADA hPa : 1850 Del. quantity	CRT mm min. : > 7.00
cm3/1000 strokes : 53.0	Rated speed rpm : 1000
cm3/1000 strokes : + 0.5 Check tolerance	CRT mm max. : 1.75
cm3/1000s. : + 1.5 + 5	rack travel mm : 5.40 Rated speed rpm : 290
Tolerance cm3/1000 strokes : 2.5	
Check tolerance cm3/1000s. : 3.0	TORQUE CONTROL
RATED SPEED	Rated speed rpm : 1000 rack travel mm : 13.95 Tolerance mm : + 0.05
control lever position degree : 50.0	Rated speed rpm : 1600 rack travel mm : 13.20 Tolerance mm : +- 0.10
rack travel mm : 8.30 Rated speed rpm : 2500	Rated speed rpm : 2200

rack travel mm Tolerance mm		+ Del. quantity + cm3/1000 strokes : 36.5 + Tolerance
ADJUSTMENT TEST /	ADA/ALDA	cm3/1000 strokes : + 0.5 Check tolerance
SETTING		cm3/1000s. : +- 1.5 Spreed Tolerance
Rated speed rpm Ref. pressure		+ cm3/1000 strokes : 2.5 + Check tolerance
ALDA / ADA hPa	: 1600	cm3/1000s. : 3.0
1EASUREMENT		<u> </u>
Rated speed rpm Ref. pressure		HIGH IDLE
ALDA / ADA hPa		Ref. pressure ALDA / ADA hPa : 1850
Rated speed rpm Ref. pressure		OTADITAG FUEL ASI TUEDU
ALDA / ADA hPa	; /ɔʊ	+ STARTING FUEL DELIVERY
		Rated speed rpm : 100 rack travel mm : 20.10
FUEL DELIVERÝ CHÂ Ref. pressure	RACIERISIICS	+ Del. quantity + cm3/1000 strokes : 52.0 + Spreed
ALDA / ADA hPe Rated speed rpm	: 1850 : 1600	Tolerance cm3/1000 strokes : 6.0
Del. quantity cm3/1000 strokes		Check tolerance cm3/1000s. : 6.0
Tolerance cm3/1000 strokes		‡
Check tolerance cm3/1000s.	: +- 1.8	
Spreed Folerance		+ LOW IDLE
cm3/1000 strokes Check tolerance	: 2.5	Del. quantity cm3/1000 strokes : 8.6
cm3/1000s.	: 3.0	Check tolerance cm3/1000s. : +- 2.3
Ref. pressure NLDA / ADA hPa	: 1850	+ Spreed + Check tolerance
Rated speed rpm Spreed		+ cm3/1000s. : 1.5
Del. quantity cm3/1000 strokes Tolerance	: 49.5	<u> </u>
olerance m3/1000 strokes heck tolerance	: ← 1.0	Grad :> 35.50
m3/1000s. preed	: + 2.0	Grad : < 33.00
olerance m3/1000 strokes	: 2.5	
heck tolerance m3/1000s.	: 3.0	SETTING PNEUMATIC FAST IDLE (ELA)
ef. pressure LDA / ADA hPa ated speed rpm		control lever position degree : 10.0 tolerance degree : + 2.0

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 10.0 tolerance degree : + 2.0 Rated speed rpm : 315

Tolerance

cm3/1000 strokes : +- 4.0

Current A : 1.80

control lever

position degree : 50.0 Rated speed rpm : 2950

Rack travel in mm : 0.50 Tolerance mm : + 0.50

Current short-

duration A : 3.00

Starting test

Rated speed rpm : 100

Current A : 1.80

ADJUSTMENT

control lever

position degree : 50.0

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 290

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.12.95 Test oil : ISO 4113

Combination No. : 0 400 836 021

Injection pump

Pump designation : PES6A80D410/3RS2527

EP type number : 0 410 886 059

Governor

Governer design. : RQV300...1400AB951DL

Governer no. : 0 420 214 215

Cust. part No.

Customer-spec. information

Customer : KHD

: F6L912 Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

2.0 x inside diameter:

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 1.95 : +- 0.05 Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : + - 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 12.05 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 69.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.0

Spreed Tolerance

cm3/1000 strokes :

2.5

Check tolerance	+	Del. quantity	
cm3/1000s.	: 4.0	cm3/1000 strokes	: 69.5
	1	Tolerance	
Rated speed rpm	: 300	cm3/1000 strokes	: +- 0.5
marca opera : p.m		Check tolerance	3.3
Rack travel in m	n: 6.00	cm3/1000s.	: +- 2.0
Tolerance mm	": + 0.10 T	Spreed	. , 2.0
	· - 0.10	Tolerance	
Del. quantity	12.0		. 2 5
cm3/1000 strokes	: 12.0	cm3/1000 strokes	: 2.5
Tolerance	†	Check tolerance	
cm3/1000 strokes	: ← 1.5 +	cm3/1000s.	: 4.0
Check tolerance			
cm3/1000s.	: ← 3.5 +		
Spreed	+		
Tolerance	+	CONTROL LEVER	
cm3/1000 strokes	: 4.0		
Check tolerance	+	control lever	
cm3/1000s.	: 6.0	position degree	: 103.0
	1	tolerance degree	
	1	1010. 4.100 409. 00	1.5
(B) SETTING OF IN	LIECTION PLIMP	RATED SPEED	
WITH GOVERNOR	OCCITOR TOTAL	WATED OF EED	
WITH GOVERNOR	Ţ	rack travel mm	: 11.00
	T		
SUZAE CLEENE TRA	(F)	Rated speed rpm	
GUIDE SLEEVE TRAV	/EL +	Tolerance 1/min	: +- 5
	700		4 00
Rated speed rpm	: 300 +	rack travel mm	: 4.00
guide sleeve	†	Rated speed rpm	
travel mm	: 1.20 +	Tolerance 1/min	: +- 15
Tolerance mm	: +- 0.15 }		
	+	rack travel mm	: 0.50
Rated speed rpm	: 1454	Tolerance mm	: + 0.50
guide sleeve	<u></u>	Rated speed rpm	: 1700
travel mm	: 8.60		
Tolerance mm	: + 0.15		
1020101100 11111	1		· · · · · · · · · · · · · · · · · · ·
Rated speed rpm	: 970	LOW IDLE	
guide sleeve	. ,,,	LOW IDEE	
travel mm	: 5.00		
Tolerance mm	: + 0.25	control lever	
roterance imi	· + 0.25		. 50.0
	4770	position degree	
Rated speed rpm	: 1720 +	tolerance degree	: + 4.U
guide sleeve	t	T	
travel mm	: 11.50	Testing:	
Tolerance mm	: + 0.50 +		
	+	Rated speed rpm	
		rack travel mm	: 6.00
GUIDE SLEEVE POSI	TION +	Tolerance mm	: +- 0.10
	+		
Rated speed rpm	: 1440	Rated speed rpm	: 100
	1	, ,	
Rack travel in mm	: 16.50	CRT mm min.	: > 7.50
Tolerance mm			
· was directiful	1	Rated speed rpm	: 495
		natea opeca i piii	• 4/2
FIUL LOAD DELTVED	T		
I OFF FOUR REFINER	Y AT FILL LOAD STOP T		
	Y AT FULL LOAD STOP	TOROUE CONTROL	
Dated cheed nom	+	TORQUE CONTROL	
Rated speed rpm	+		• 0.80
Rated speed rpm Aneroid pressure hPa	+	TORQUE CONTROL Dimension a mm Rated speed rpm	: 0.80 : 1400

rack travel mm Tolerance mm	: 12.05 : + 0.05		
Rated speed rpm rack travel mm Tolerance mm	: 700 : 12.85 : + 0.10		
Rated speed rpm rack travel mm Tolerance mm	: 1045 : 12.70 : + 0.10		
Rated speed rpm rack travel mm Tolerance mm	: 1150 : 12.40 : + 0.10		
START CUT-OUT			
Rated speed rpm Rated speed rpm	: > 100 : < 220		
Check speed 1/min Check	: > 80		
speed 1/min	: < 240		
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 65.5		
BREAKAWAY			
Rack travel in mm Rated speed rpm Tolerance 1/min	: 11.00 : 1445 : +- 5		
STARTING FUEL DELIVERY			
	: 100		

Rated speed rpm rack travel mm Tolerance mm	:		300 6.00 0.10
Del. quantity	•	T-	0.10
cm3/1000 strokes	•		12.0
Tolerance			
cm3/1000 strokes	:	+-	1.5
Check tolerance			
cm3/1000s.	:	+-	3.5
Spreed			
Tolerance			
cm3/1000 strokes	:		4.0
Check tolerance			
cm3/1000s.	:		6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 04.12.95 : ISO 4113

Combination No. : 0 402 036 761

Injection pump

Pump designation : PES6P110A120RS3353

EP type number

Governor

Governer design. : RQV450...1100PA1233K

Governer no. : 0 421 815 474

Cust. part No. : 3926886

Customer-spec. information

Customer : CDC

Motor

: 6CTA

Power KW

: 187.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 2 417 413 086

Inlet press. bar :

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 103

Opening pressure

bar

208.5

Tolerance bar

: + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

: 3.60 Prestroke mm

Tolerance mm

Check tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50

: +- 0.05

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

Start of delivery blocking

"NW after s.o.d. : 8.50 Tolerance : \leftarrow 0.10

Check

tolerance °NW : + 0.23

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel

13.00

Difference ° CS :

1.20

BASIC SETTING

Rated speed rpm : 1000

	+	
Rack travel in m Tolerance mm	m: 13.15 : +- 0.05	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000
Del. quantity cm3/1000 strokes	: 200.0	Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity
Tolerance cm3/1000 strokes	: + 1.0	cm3/1000 strokes : 200.0 Tolerance cm3/1000 strokes : +- 1.0
Check tolerance cm3/1000s.	: + 4.0	Check tolerance cm3/1000S. : + 4.0 Spreed
Spreed Tolerance cm3/1000 strokes	: 8.0	Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0
Check tolerance cm3/1000s.	: 12.0	
Del. quantity cm3/1000 strokes	: 21.5	CONTROL LEVER
Tolerance cm3/1000 strokes Check tolerance	+	control lever position degree : 110.0 tolerance degree : +- 4.0
cm3/1000S. Spreed Tolerance	: +- 5.0	RATED SPEED
cm3/1000 strokes Check tolerance cm3/1000s.	: 4.0	rack travel mm : 11.30 Rated speed rpm : 1155 Tolerance 1/min : +- 15
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	rack travel mm : 4.00 Rated speed rpm : 1265 Tolerance 1/min : +- 15
GUIDE SLEEVE TRAV	/EL +	rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve	: 500	Rated speed rpm : 1325
travel mm Tolerance mm	: 1.87 : + 0.20	LOW IDLE
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1163 : 7.50 : + 0.15	control lever position degree : 76.0 tolerance degree : + 4.0
Rated speed rpm guide sleeve	: 860	Testing:
travel mm Tolerance mm	: 4.55 : + 0.25	Rated speed rpm : 500 rack travel mm : 5.80 Tolerance mm : +- 0.20
Rated speed rpm guide sleeve	+	Rated speed rpm : 500
travel mm Tolerance mm	: 13.50 : + 0.50	CRT mm min. : > 7.40

Rated speed rpm	: 500	+ Rated speed rpm : 750 + Del. quantity
TORQUE CONTROL		+ cm3/1000 strokes : 189.5 + Tolerance
Rated speed rpm rack travel mm	: 13.15	cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0
Tolerance mm Rated speed rpm rack travel mm	: 750 : 12.80	+ Spreed + Tolerance - cm3/1000 strokes : 8.0 + Check tolerance
Tolerance mm	: +- 0.20	+ cm3/1000s. : 12.0
Rated speed rpm rack travel mm Tolerance mm	: 12.45	Aneroid pressure hPa : 1200 Rated speed rpm : 1100 Del. quantity
ANEROID/ALTITUDE COMPENSATOR TEST		- cm3/1000 strokes : 178.5 Tolerance - cm3/1000 strokes : +- 3.0 Check tolerance
SETTING		+ cm3/1000s. : +- 6.0
Rated speed rpm Pressure hPa	: 1000 : 1200	+ Aneroid pressure + hPa : - Rated speed rpm : 1000
MEASUREMENT		+ Del. quantity + cm3/1000 strokes : 121.0
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 10.35	Tolerance - cm3/1000 strokes : + 2.0 - Check tolerance - cm3/1000s. : + 4.0
Rated speed rpm	: 1000	BREAKAWAY
Pressure hPa rack travel mm Tolerance mm	: 12.60 : + 0.30	Rack travel in mm : 11.30 Rated speed rpm : 1155 Tolerance 1/min : + 15
Pressure hPa rack travel mm Tolerance mm	: 720 : 11.15 : + 0.20	
		+ STARTING FUEL DELIVERY
START CUT-OUT	: > 100	Rated speed rpm : 100 rack travel mm : 21.00 Tolerance mm : + 0.50
Rated speed rpm Rated speed rpm		Del. quantity cm3/1000 strokes : 161.0
Check speed 1/min Check	: > 80	Tolerance - cm3/1000 strokes : +- 20.0 - Check tolerance
speed 1/min	: < 390 -	cm3/1000s. : +- 25.0
FUEL DELIVERY CHA	ARACTERISTICS -	
Aneroid pressure hPa	: 1200	LOW IDLE

Del. quantity cm3/1000 strokes	:	21.5
Tolerance cm3/1000 strokes	: +-	3.0
Check tolerance cm3/1000s.	: +-	5.0
Spreed Tolerance		
cm3/1000 strokes Check tolerance	:	4.0
cm3/1000s.	:	8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.01.96 Test oil : ISO 4113

Combination No. : 0 400 074 892

Injection pump

Pump designation : PES4M55C32ORS167 EP type number : 0 410 054 960

Governor

Governer design. : RSF360/1900M70-7 Governer no. : 0 420 021 153

Cust. part No. : T8

Customer-spec. information

Customer : MB-NFZ

Motor : 0M601-D23 A,S,CH

Power KW : 58.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 21.00 Tolerance mm : +- 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Start of delivery blocking

*NW after s.o.d. : 15.50 Tolerance : + 0.20

Check

tolerance *NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 12.85
Tolerance mm: + 0.05

Del. quantity cm3/1000 strokes : 41.5

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance cm3/1000s.

m3/1000s. : +- 1.5

Spreed

Tolerance	
cm3/1000 strokes : 2.5	SET IDLE CONTROL LEVER POSITION
Check tolerance cm3/1000s. : 3.0	- Rated speed rpm : 1000
Rated speed rpm : 335	CRT mm max. : 1.45
Rack travel in mm: 5.20 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 6.5 Tolerance	- control lever
cm3/1000 strokes : +- 0.5 Spreed Tolerance	- position degree : 13.0 - tolerance degree : + 2.0
cm3/1000 strokes : 1.0	 Setting point w/out bumper spring Rated speed rpm : 335 rack travel mm : 5.20
(B) SETTING OF INJECTION PUMP	-
WITH GOVERNOR	SET IDLE AUXILIARY SPRING
IDLE STAGE	- Rated speed rpm : 400 - rack travel mm : 4.00 - Tolerance mm : +- 0.10
Rack travel in mm: 6.25 Tolerance mm: + 0.25	rack travel mm : 2.50 Rated speed rpm : 600 Tolerance 1/min : + 50
FULL LOAD DELIVERY AT FULL LOAD STOP	- Load pick-up
Rated speed rpm : 1000 + Ref. pressure +	- Rated speed rpm : 250
ALDA / ADA hPa : 1100 Del. quantity	- CRT mm min. : > 7.50
cm3/1000 strokes : 41.5	Rated speed rpm : 1000
cm3/1000 strokes : +- 0.5 Check tolerance	CRT mm max. : 1.45
cm3/1000s. : +- 1.5 +- Spreed	rack travel mm : 5.20 Rated speed rpm : 335
Tolerance cm3/1000 strokes : 2.5	•
Check tolerance cm3/1000s. : 3.0	TORQUE CONTROL
RATED SPEED	Rated speed rpm : 1000 rack travel mm : 12.85 Tolerance mm : +- 0.05
control lever position degree : 50.0	Rated speed rpm : 1400 rack travel mm : 12.35 Tolerance mm : +- 0.15
rack travel mm : 7.25 Rated speed rpm : 2100	Rated speed rpm : 1900 rack travel mm : 11.55
rack travel mm : 0.50 Tolerance mm : + 0.50	Tolerance mm : + 0.15
Rated speed rpm : 2500	Rated speed rpm : 500

rack travel mm		+ Check tolerance
Tolerance mm	: +- 0.15	+ cm3/1000S. : +- 2.0 + Spreed
Rated speed rpm	: 800	+ Tolerance
rack travel mm Tolerance mm	: 12.55	+ cm3/1000 strokes : 2.5
Tolerance mm	: +- 0.15	+ Check tolerance + cm3/1000s. : 3.0
		cm3/1000s. : 3.0
ADJUSTMENT TEST A	ADA/ALDA	Ref. pressure
CCTTIAIC		+ ALDA / ADA hPa : 1100
SETTING		+ Rated speed rpm : 500 + Del. quantity
Rated speed rpm	: 1000	+ cm3/1000 strokes : 36.3
Ref. pressure	050	+ Tolerance
ALDA / ADA hPa rack travel mm		+ cm3/1000 strokes : +- 0.8 + Check tolerance
Tolerance mm		+ cm3/1000s. : +- 1.8
		+ Tolerance
MEASUREMENT		+ cm3/1000 strokes : 2.5
Rated speed rpm	: 1000	+ Check tolerance + cm3/1000s. : 3.0
Ref. pressure	. 1000	+
ALDA / ADA hPa		Ref. pressure
rack travel mm		+ ALDA / ADA hPa : 1100
Tolerance mm	: + 0.10	+ Rated speed rpm : 800 + Del. quantity
Rated speed rpm	: 1000	+ cm3/1000 strokes : 39.3
Ref. pressure		+ Tolerance
ALDA / ADA hPa	: 750	+ cm3/1000 strokes : +- 0.8
rack travel mm Tolerance mm	: -2.00 : + 0.20	+ Check tolerance + cm3/1000S. : + 1.5
toterance um	: +- 0.20	+ Spreed
		+ Tolerance
#1 (F) - F T 1 (F) 1 ALIA	DAATERTATION	+ cm3/1000 strokes : 2.5
FUEL DELIVERY CHA	RACTERISTICS	+ Check tolerance + cm3/1000s. : 3.0
Ref. pressure		+
ALDA / ADA hPa		+
Rated speed rpm	: 1400	HIGH TOLE
Del. quantity cm3/1000 strokes	: 40.8	HIGH IDLE
Tolerance	. 40.0	T Ref. pressure
cm3/1000 strokes	: +- 0.8	+ ALDA / ADA hPa : 1100
Check tolerance		†
cm3/1000s. Spreed	: +- 1.8	+ STARTING FUEL DELIVERY
Tolerance		- SIMILING FOLL MELIATIVE
cm3/1000 strokes	: 2.5	Rated speed rpm : 100
Check tolerance	7.0	rack travel mm : 20.10
cm3/1000s.	: 3.0	Del. quantity cm3/1000 strokes : 52.0
Ref. pressure		+ Spreed
ALDA / ADA hPa	: 1100	+ Tolerance
Rated speed rpm		cm3/1000 strokes : 6.0
Spreed		† Check tolerance + cm3/1000s. : 6.0
Del. quantity cm3/1000 strokes	: 41.0	T (11137 10003. : 6.0
Tolerance		1
cm3/1000 strokes	: + 1.0	†

LOW IDLE

Del. quantity

cm3/1000 strokes : 7.8

Check tolerance

cm3/1000s. : +- 2.3

Spreed

Check tolerance

cm3/1000s. : 1.5

SETTING PNEUMATIC FAST IDLE (ELA)

control lever

position degree : 13.0 tolerance degree : + 2.0

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 13.0 tolerance degree : + 2.0 Rated speed rpm : 360

Rack travel in mm : 13.00 Tolerance mm : + 0.70

Current A : 1.80

control lever

position degree : 50.0 Rated speed rpm : 2500

kated speed rpm : 2500

Rack travel in mm : 0.50 Tolerance mm : + 0.50

Current short-

duration A : 3.00

Starting test

Rated speed rpm : 100

Current A : 1.80

ADJUSTMENT

control lever

position degree : 50.0

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 335

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 28.12.95 : ISO 4113

Combination No. : 0 400 463 121

Injection pump

Pump designation : PES3A80D410/3RS1324 EP type number : 0 410 483 017

Governor

Governer design. : RSV325...900A7C602

-41

Governer no.

: 0 420 232 604

Cust. part No. :

Customer-spec. information Customer : KHD : F3L912 Motor

TEST BENCH REQUIREMENTS

Inlet line

: 1.3

Test oil inlet

temp. °C 40 Tolerance °C 2.0

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

: 1.95 Prestroke mm : +- 0.05 Tolerance mm

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1- 3- 2 Firing order

: 0-120-240 Phasing

BASIC SETTING

Rated speed rpm 088

Rack travel in mm : 11.20 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 50.5

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance

cm3/1000s. : +-2.0

Spreed

Tolerance

cm3/1000 strokes :

2.5

Check tolerance

4.0 cm3/1000s.

Rated speed rpm : 325	
+	rack travel mm : 4.00
Rack travel in mm: 8.40	Rated speed rpm : 960
Tolerance mm : + 0.10	Tolerance 1/min : + 15
Del. quantity + cm3/1000 strokes : 11.0 +	mode though the company of O.S.
cm3/1000 strokes : 11.0	rack travel mm : 0.85
cm3/1000 strokes : + 1.5	Tolerance mm : +- 0.55 Rated speed rpm : 1100
Check tolerance	Rated Speed Ppin . 1100
cm3/1000s. : +- 3.5	rack travel mm : 4.00
Spreed	Rated speed rpm : 975
Tolerance	
cm3/1000 strokes : 4.0	
Check tolerance	
cm3/1000s. : 6.0	LOW IDLE
†	
(D) OFFITTIO OF THIS OFFITTION DIME	and the later of
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR	position degree : 77.0 tolerance degree : +- 4.0
I	toterance degree : +- 4.0
***************************************	Setting point w/out bumper spring
GUIDE SLEEVE POSITION	account to the case admits a second
+	Rated speed rpm : 325
Rated speed rpm : 800	rack travel mm : 7.90
†	
Rack travel in mm: 0.50	Testing:
Tolerance mm : + 0.20	Dated award was 725
T	Rated speed rpm : 325 rack travel mm : 8.40
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 8.40 Tolerance mm : +- 0.10
TOLL LOAD DELIVERY AT TOLL LOAD STOP	Totel affee likil
Rated speed rpm : 880	rack travel mm : 2.00
Aneroid pressure	Rated speed rpm : 450
hPa : - +	Tolerance 1/min : +- 30
Del. quantity	
cm3/1000 strokes : 50.5	
Tolerance +	TORQUE CONTROL
cm3/1000 strokes : +- 0.5	
Check tolerance +	Rated speed rpm : 880
cm3/1000s. : +- 2.0 +	rack travel mm : 11.20
Spreed	Tolerance mm : +- 0.05
Tolerance + cm3/1000 strokes : 2.5 +	Rated speed rpm : 500
Check tolerance	Rated speed rpm : 500 rack travel mm : 11.25
cm3/1000s. : 4.0	Tolerance mm : +- 0.10
11157 10005.	rocerance ind
1	
CONTROL LEVER +	
+	
control lever	DDEALANAY
position degree : 108.0	BREAKAWAY
tolerance degree : + 4.0	
RATED SPEED	Rack travel in mm : 10.20
MATER OF EER	Rated speed rpm : 925
rack travel mm : 10.20	Tolerance 1/min : + 5
Rated speed rpm : 925	
Tolerance 1/min : +- 5	
•	

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75

Del. quantity

cm3/1000 strokes : 125.0

Tolerance

cm3/1000 strokes : +- 7.5

Check tolerance

cm3/1000s. : + 10.0

LOW IDLE

Rated speed rpm 325 8.40 rack travel mm Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 3.5 Spreed Tolerance cm3/1000 strokes 4.0 Check tolerance cm3/1000s. 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.01.96 Test oil : ISO 4113

Combination No. : 0 400 075 925

Injection pump

Pump designation : PES5M55C32ORS201 EP type number : 0 410 055 972

Governor

Governer design. : RSF350/2500M56-13 Governer no. : 0 420 021 171

Cust. part No. :

Customer-spec. information
Customer : MB-PKW
Motor : CM605
Power KW : 83.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 1.75
Tolerance mm : + 0.05

Check

tolerance mm : \div 0.10

Rack travel in mm : 21.00 Tolerance mm : +- 1.00

Firing order : 1-2-4-5-3

Phasing : 0-72-144-216-288

Start of delivery blocking

*NW after s.o.d. : 16.50 Tolerance : + 0.20

Check

tolerance °NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 12.75 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 37.0

Tolerance cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s. : +- 1.5

Spreed

Tolerance + cm3/1000 strokes : 2.5	
	SET IDLE CONTROL LEVER POSITION
Check tolerance cm3/1000s. : 3.0	Rated speed rpm : 1400
Rated speed rpm : 350	CRT mm max. : 1.95
Rack travel in mm: 7.40 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 8.5	Setting point w/out bumper spring Rated speed rpm : 350
cm3/1000 strokes : + 0.5 Spreed	rack travel mm : 7.40
Tolerance cm3/1000 strokes : 1.0	SET IDLE AUXILIARY SPRING
+	Rated speed rpm : 475
	rack travel mm : 5.40
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance mm : + 0.10
WITH GOVERNOR	rack travel mm : 3.00
	Rated speed rpm : 700
IDLE STAGE	Tolerance 1/min : +- 50
Rack travel in mm: 6.25	Load pick-up
Tolerance mm : + 0.25	Rated speed rpm : 250
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : > 10.00
FOLL LOAD DELIVERY AT FOLL LOAD STOP	Rated speed rpm : 1400
Rated speed rpm : 1400	·
Ref. pressure	CRT mm max. : 1.95
ALDA / ADA hPa : 1100	most through mm
Del. quantity + cm3/1000 strokes : 37.0 +	rack travel mm : 7.40 Rated speed rpm : 350
Tolerance	nated speed (pm . 330
cm3/1000 strokes : + 0.5	
Check tolerance +	
cm3/1000s. : +- 1.5	TORQUE CONTROL
Spreed + Tolerance +	Rated speed rpm : 1400
cm3/1000 strokes : 2.5	rack travel mm : 12.75
Check tolerance	Tolerance mm : +- 0.05
cm3/1000s. : 3.0 +	
+	Rated speed rpm : 2300
RATED SPEED	rack travel mm : 12.30 Tolerance mm : +- 0.15
RATED SPEED	Total arice limit 0.15
+	Rated speed rpm : 2500
control lever	rack travel mm : 11.90
position degree : 50.0	Tolerance mm : + 0.15
rack travel mm : 7.50	
Rated speed rpm : 2700	ADJUSTMENT TEST ADA/ALDA
+	
rack travel mm : 0.50 + Tolerance mm : +- 0.50 +	SETTING
Tolerance mm : + 0.50 + Rated speed rpm : 3150 +	Rated speed rpm : 1400
rated speed thiii • 2120 T	nated speed ipili . 1400

Ref. pressure		+
ALDA / ADA hPa rack travel mm	: 940 : -0.10	STARTING FUEL DELIVERY
Tolerance mm	: + 0.10	+ STARTING FOLE DELIVERT
		Rated speed rpm : 100
MEASUREMENT		+ rack travel mm : 21.60 + Tolerance mm : +- 1.50
Rated speed rpm	: 1400	Del. quantity
Ref. pressure		+ cm3/1000 strokes : 55.0
ALDA / ADA hPa	: 900 : -0.40	+ Tolerance + cm3/1000 strokes : + 4.0
rack travel mm Tolerance mm		+ Check tolerance
		+ cm3/1000s. : + 5.0
Rated speed rpm	: 1400	+ Spreed
Ref. pressure ALDA / ADA hPa	• 750	+ Tolerance + cm3/1000 strokes : 6.0
rack travel mm	: 750 : -1.50	Check tolerance
Tolerance mm	: ← 0.20	 cm3/1000s. : 6.0
		†
		I
FUEL DELIVERY CHA	ARACTERISTICS	
5		+ LOW IDLE
Ref. pressure ALDA / ADA hPa	• 1100	Del. quantity
Rated speed rpm		+ cm3/1000 strokes : 9.5
Del. quantity		+ Check tolerance
cm3/1000 strokes	: 39.3	+ cm3/1000s. : + 2.3 + Spreed
Tolerance cm3/1000 strokes	: +- 0.8	+ Check tolerance
Check tolerance		+ cm3/100Qs. : 1.5
cm3/1000s.	: +- 1.8	+
Spreed Tolerance		İ
cm3/1000 strokes	: 2.5	1
Check tolerance		†
cm3/1000s.	: 3.0	+ Grad :> 49.00
Ref. pressure		$\frac{1}{4}$ Grad : < 46.50
ALDA / ADA hPa		+
Rated speed rpm	: 2500	SETTING PNEUMATIC FAST IDLE (ELA)
Spreed Del. quantity		SETTING PNEUMATIC PAST IDLE (ELA)
cm3/1000 strokes	: 38.0	Rated speed rpm : 400
Tolerance	. 4.0	1 2 1 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
cm3/1000 strokes Check tolerance	: + 1.0	+ Rack travel in mm : 8.25 + Tolerance mm : + 0.70
	: +- 2.0	Del. quantity
Spreed		+ cm3/1000 strokes : 12.0
Tolerance cm3/1000 strokes	: 2.5	<pre>f Tolerance f cm3/1000 strokes : +- 3.5</pre>
Check tolerance		Check tolerance
cm3/1000s.	: 3.0	+ cm3/1000s. : +- 4.5
		+ Vacuum hPa : 400.0
HIGH IDLE		SETTING/TESTING ELECTRONIC IDLE
		REGULATION (ELR)
Ref. pressure ALDA / ADA hPa	: 1100	<u> </u>
ALUM / MUM NPd	. 1100	Τ

control lever position degree : 50.0

ADJUSTMENT

control lever

position degree : 50.0

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm 350

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 05.01.96 Edition Test oil : ISO 4113

Combination No. : 0 400 075 926

Injection pump

Pump designation : PES5M55C32ORS201 : 0 410 055 972 EP type number

Governor

Governer design. : RSF350/2500M75-3 Governer no. : 0 420 021 173

Cust. part No.

Customer-spec. information : MB-PKW Customer : 0M605 Motor

Power KW : 83.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C 40 Tolerance °C 2.0

: 1 469 990 351 Overflow valve

Inlet press. bar : 1.0

Test nozzle holde

: 1 688 901 111 assembly

Opening pressure

148.5 bar Tolerance bar : +- 1.5

: 1 680 750 014 Test lines

Outside diameter : 6.0

2.0 x inside diameter : 600 x length mm

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : \leftarrow 1.0

1.75 Prestroke mm : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-2-4-5-3

Phasing : 0-72-144-216-288

Start of delivery blocking

"NW after s.o.d. : 16.50 : + - 0.20Tolerance

Check

tolerance °NW : +- 0.30

: 1 Barrel no.

BASIC SETTING

1400 Rated speed rpm

Rack travel in mm : 12.75 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 37.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : + 1.5

Spreed Tolerance	+ Rated speed rpm : 3150
cm3/1000 strokes : 2.5	SET IDLE CONTROL LEVER POSITION
Check tolerance cm3/1000s. : 3.0	Rated speed rpm : 1400
Rated speed rpm : 350	CRT mm max. : 1.95
Rack travel in mm : 7.40	+
Tolerance mm : + 0.10 Del. quantity	+ LOW IDLE
cm3/1000 strokes : 8.5	+ Setting point w/out bumper spring
Tolerance cm3/1000 strokes : + 0.5	Rated speed rpm : 350 rack travel mm : 7.40
Spreed Tolerance	SET IDLE AUXILIARY SPRING
cm3/1000 strokes : 1.0	- OET INCE MONIETANT OF WING
	Rated speed rpm : 475
	rack travel mm : 5.40
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance mm : + 0.10
	rack travel mm : 3.00
IDLE STAGE	+ Rated speed rpm : 700 + Tolerance 1/min : + 50
	Load pick-up
Rack travel in mm : 6.25 Tolerance mm : + 0.25	Rated speed rpm : 250
	T CRT mm min. : > 10.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1400
Rated speed rpm : 1400 Ref. pressure	+ CRT mm max. : 1.95
ALDA / ADA hPa : 1100	T CAT man max.
Del. quantity	rack travel mm : 7.40
cm3/1000 strokes : 37.0	Rated speed rpm : 350
Tolerance cm3/1000 strokes : +- 0.5	†
Check tolerance	I
cm3/1000s. : + 1.5	TORQUE CONTROL
Spreed Tolerance	Rated speed rpm : 1400
cm3/1000 strokes : 2.5	rack travel mm : 12.75
Check tolerance	+ Tolerance mm : + 0.05
cm3/1000s. : 3.0	+
	+ Rated speed rpm : 2300 + rack travel mm : 12.30
RATED SPEED	+ Tolerance mm : + 0.15
MATER OF LER	10 CCT GIVE TIME
	+ Rated speed rpm : 2500
control lever	+ rack travel mm : 11.90
position degree : 50.0	+ Tolerance mm : + 0.15
rack travel mm : 7.50	AD 11/07/17/17 TECT AD 1/1/17
Rated speed rpm : 2700	+ ADJUSTMENT TEST ADA/ALDA
rack travel mm : 0.50 Tolerance mm : +- 0.50	SETTING
	•

Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm		Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY
MEASUREMENT		+ Rated speed rpm : 100
Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm	: 1400 : 900 : −0.40 : ← 0.10	rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 55.0 Tolerance cm3/1000 strokes : + 4.0
Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm	: 1400 : 750 : −1.50 : + 0.20	Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0
FUEL DELIVERY CHA	ARACTERISTICS	†
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 2300 : 39.3 : + 0.8	LOW IDLE Del. quantity cm3/1000 strokes: 9.5 Check tolerance cm3/1000s. : +- 2.3 Spreed Check tolerance cm3/1000s. : 1.5
cm3/1000 strokes Check tolerance cm3/1000s.	: 2.5 : 3.0	Grad : > 49.00
Ref. pressure ALDA / ADA hPa Rated speed rpm	: 1100 : 2500	Grad : < 46.50
Spreed Del. quantity cm3/1000 strokes Tolerance		SETTING PNEUMATIC FAST IDLE (ELA) Rated speed rpm : 400
cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: +- 1.0 : +- 2.0	Rack travel in mm: 8.25 Tolerance mm: + 0.70 Del. quantity
Tolerance cm3/1000 strokes Check tolerance	7.0	- cm3/1000 strokes : 12.0 - Tolerance - cm3/1000 strokes : + 3.5 - Check tolerance
cm3/1000s.	: 3.0	- check toterance - cm3/1000s. : +- 4.5 - Vacuum hPa : 400.0
HIGH IDLE		SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 50.0

ADJUSTMENT

control lever

position degree : 50.0

Rated speed rpm : 1400 rack travel mm : 1.70

Tolerance mm : + 0.15

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 350

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 04.01.96 Edition : ISO 4113 Test oil

Combination No. : 0 400 076 954

Injection pump

Pump designation : PES6M55C32ORS203 EP type number : 0 410 056 982

Governor

Governer design. : RSF315/2500M70-10

Governer no. : 0 420 021 175

Cust. part No.

Customer-spec. information Customer : MB-PKW : 0M606 Motor Power KW : 100.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

: 1 688 901 111 assembly

Opening pressure

148.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 1.75 : +- 0.05 Tolerance mm Check

tolerance mm : **←** 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

Start of delivery blocking

*NW after s.o.d. : 16.50 Tolerance : + 0.20Check

tolerance °NW

: + 0.30

BASIC SETTING

Rated speed rpm : 1100

Barrel no. : 1

Rack travel in mm: 13.35 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 39.0

Tolerance cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s. : +- 1.5

Spreed

Tolerance tm3/1000 strokes : 2.5	
	- SET IDLE CONTROL LEVER POSITION
Check tolerance cm3/1000s. : 3.0	- Rated speed rpm : 1100
Rated speed rpm : 290	- CRT mm max. : 1.95
Rack travel in mm: 7.30 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 8.5	- control lever
cm3/1000 strokes : + 0.5 Spreed Tolerance	position degree : 10.5 toleranse degree : +- 2.0
cm3/1000 strokes : 1.0	Setting point w/out bumper spring Rated speed rpm : 290 rack travel mm : 7.30
(B) SETTING OF INJECTION PUMP	•
WITH GOVERNOR +	SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 400 rack travel mm : 6.00
1012 37402	Tolerance mm : + 0.10
Rack travel in mm: 6.25	rack travel mm : 3.00
Tolerance mm : +- 0.25	Rated speed rpm : 700 Tolerance 1/min : +- 50
Ţ	•
FULL LOAD DELIVERY AT FULL LOAD STOP	Load pick-up
Rated speed rpm : 1100 + Ref. pressure +	Rated speed rpm : 220
ALDA / ADA hPa : 1100 +	CRT mm min. : 9.90
Del. quantity + cm3/1000 strokes : 39.0 + Tolerance	Rated speed rpm : 1100
cm3/1000 strokes : \leftarrow 0.5 $+$	CRT mm max. : 1.95
Check tolerance + 1.5 + 1.5	rack travel mm : 7.30
Spreed + Tolerance +	Rated speed rpm : 290
cm3/1000 strokes : 2.5	
Check tolerance cm3/1000s. : 3.0	TORQUE CONTROL
RATED SPEED	Rated speed rpm : 1100 rack travel mm : 13.35 Tolerance mm : + 0.05
control lever position degree : 50.0	Rated speed rpm : 2000 rack travel mm : 12.75 Tolerance mm : +- 0.15
rack travel mm : 8.70 + Rated speed rpm : 2700 +	
Rated speed rpm : 2700 + rack travel mm : 1.00 +	Rated speed rpm : 2500 rack travel mm : 12.25 Tolerance mm : +- 0.15
Tolerance mm : + 1.00 +	
Rated speed rpm : 3000 +	Rated speed rpm : 500

rack travel mm	: 12.50	Check tolerance
Tolerance mm	: + 0.15	cm3/1000s. : +- 2.0
TOTEL BLICE HAIL	i	Chand
Rated speed rpm	: 900 : 13.10 : + 0.15	Tolerance
rack travel mm	13.10	cm3/1000 strokes : 2.5
Tolerance mm	: ← 0.15 1	Check tolerance
rocer ance man	Γ	cm3/1000s. : 3.0
		
ADJUSTMENT TEST	ADA/ALDA	Ref. pressure
ADDOOTHER TEOT	1	ALDA / ADA hPa : 1100
SETTING	1	Rated speed rpm : 500
02.1.2110	1	Del. quantity
Rated speed rpm	: 1100	cm3/1000 strokes : 32.9
Ref. pressure	1	Tolerance
ALDA / ADA hPa	: 940 : -0.10	cm3/1000 strokes : + 0.8
rack travel mm	: -0.10	Check tolerance
Tolerance mm	: + 0.10	cm3/1000s. : +- 1.8
V = 0 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1	1	Tolerance
MEASUREMENT	1	cm3/1000 strokes : 2.5
	4	Check tolerance
Rated speed rpm	## ADA/ALDA ## 1100 ## 940 ## -0.10 ## 1100 ## 900 ## -0.40 ## -0.10 ## 1100 ## 1100 ## 750 ## -1.50	cm3/1000s. : 3.0
Ref. pressure	+	
ALDA / ADA hPa	: 900	Ref. pressure
rack travel mm	: -0.40	ALDA / ADA hPa : 1100
Tolerance mm	: +- 0.10 +	Rated speed rpm : 900
	+	Del. quantity
Rated speed rpm	: 1100	cm3/1000 strokes : 37.3
Ref. pressure	+	Tolerance
ALDA / ADA hPa	: 750	cm3/1000 strokes : $+$ 0.8
rack travel mm	; ~1.50 †	theck toterance
Tolerance mm	: + 0.20 +	cm3/1000s. : + 1.8
	+	Spreed
	†	Tolerance
EUEL DEL TUEDY CUI	ADACTEDICTION	cm3/1000 strokes : 2.5
FUEL DELIVERY CHA	AKACIEKTOITCO T	Check tolerance cm3/1000s. : 3.0
Dof magging	Ť	cm3/1000s. : 3.0
Ref. pressure ALDA / ADA hPa	: 1100	
	1	
Rated speed rpm	: 2000	HIGH IDLE
Del. quantity cm3/1000 strokes	: 40.1 I	HIGH INCE
Tolerance	·	Ref. pressure
cm3/1000 strokes	· +- ns I	ALDA / ADA hPa : 1100
Check tolerance	1	ALUA / AUA III d · /100
Officer, cores direc		
cm3/1000s.	: +- 1.8	
Check tolerance cm3/1000s.	: +- 1.8	STARTING FUEL DELIVERY
Spreed	: +- 1.8	STARTING FUEL DELIVERY
Spreed Tolerance	‡	
Spreed	: 2.5	Rated speed rpm : 100
Spreed Tolerance cm3/1000 strokes Check tolerance	: 2.5	
Spreed Tolerance cm3/1000 strokes	: 2.5	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000S. Ref. pressure	: 2.5 : 3.0	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : +- 1.50 Del. quantity cm3/1000 strokes : 59.0
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000S. Ref. pressure ALDA / ADA hPa	: 2.5 : 3.0 : 1100	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : +- 1.50 Del. quantity cm3/1000 strokes : 59.0 Tolerance
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000S. Ref. pressure ALDA / ADA hPa Rated speed rpm	: 2.5 : 3.0 : 1100	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 59.0 Tolerance cm3/1000 strokes : +- 4.0
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed	: 2.5 : 3.0 : 1100	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 59.0 Tolerance cm3/1000 strokes : +- 4.0 Check tolerance
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000S. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity	: 2.5 : 3.0 : 1100 : 2500	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 59.0 Tolerance cm3/1000 strokes : +- 4.0 Check tolerance cm3/1000s. : +- 5.0
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes	: 2.5 : 3.0 : 1100 : 2500	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 59.0 Tolerance cm3/1000 strokes : +- 4.0 Check tolerance cm3/1000s. : +- 5.0 Spreed
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes Tolerance	: 2.5 : 3.0 : 1100 : 2500 : 39.5	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 59.0 Tolerance cm3/1000 strokes : +- 4.0 Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes	: 2.5 : 3.0 : 1100 : 2500 : 39.5	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 59.0 Tolerance cm3/1000 strokes : +- 4.0 Check tolerance cm3/1000s. : +- 5.0 Spreed
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes Tolerance	: 2.5 : 3.0 : 1100 : 2500 : 39.5	Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 59.0 Tolerance cm3/1000 strokes : +- 4.0 Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance

Check tolerance cm3/1000s. 8.5 LOW IDLE 290 Rated speed rpm rack travel mm 7.50 Tolerance mm : + - 0.15Del. quantity cm3/1000 strokes : 9.5 Check tolerance cm3/1000s. : +- 2.3 Spreed Check tolerance cm3/1000s. 1.5 SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : 10.5 tolerance degree : +-2.0 SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR) control lever 10.5 position degree tolerance degree : +-2.0 315 Rated speed rpm Rack travel in mm: 13.20 Tolerance mm : +- 0.70 Del. quantity cm3/1000 strokes : 34.0 Tolerance cm3/1000 strokes : + 3.5 Current A : 1.80 control lever 50.0 position degree : Rated speed rpm : 3000 Rack travel in mm : 1.00 Tolerance mm : +- 1.00

3.00

Rated speed rpm : 100

Current A : 1.80

ADJUSTMENT

position degree : 50.0

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 290

End of test specification sheet

control lever

Current short-

duration A

Starting test

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.01.96 Test oil : ISO 4113

Combination No. : 0 400 076 955

Injection pump

Pump designation : PES6M55C32ORS203 EP type number : 0 410 056 982

Governor

Governer design. : RSF315/2500M76 Governer no. : 0 420 021 174

Cust. part No.

Customer—spec. information Customer : MB-PKW Motor : 0M606 Power KW : 100.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 1.75
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Start of delivery blocking

"NW after s.o.d. : 16.50 Tolerance : \leftarrow 0.20

Check

tolerance °NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 13.35 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 39.0

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance cm3/1000s. ; + 1.5

Spreed

Tolerance + cm3/1000 strokes : 2.5	CET TO E CONTROL LEVED DOCUTION
Check tolerance cm3/1000s. : 3.0	SET IDLE CONTROL LEVER POSITION Rated speed rpm : 1100
Rated speed rpm : 300	CRT mm max. : 1.95
Rack travel in mm: 7.30 Tolerance mm: +- 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 8.5	control lever
cm3/1000 strokes : +- 0.5 +- Spreed +-	position degree : 10.5 tolerance degree : +- 2.0
Tolerance + cm3/1000 strokes : 1.0 +	Setting point w/out bumper spring Rated speed rpm : 300
(B) SETTING OF INJECTION PUMP	rack travel mm : 7.30
WITH GOVERNOR	SET IDLE AUXILIARY SPRING
+	Rated speed rpm : 400
IDLE STAGE	rack travel mm : 6.00 Tolerance mm : + 0.10
<u> </u>	Toterance in : - U. IU
Rack travel in mm: 6.25	rack travel mm : 3.00
Tolerance mm : + 0.25 +	Rated speed rpm : 700 Tolerance 1/min : +- 50
	Tolerance 1/min : +- 50
FULL LOAD DELIVERY AT FULL LOAD STOP	Load pick-up
Rated speed rpm : 1100 + Ref. pressure +	Rated speed rpm : 220
ALDA / ADA hPa : 1100 Del. quantity	CRT mm min. : 9.80
cm3/1000 strokes : 39.0	Rated speed rpm : 1100
cm3/1000 strokes : + 0.5 Check tolerance	CRT mm max. : 1.95
cm3/1000s. : +- 1.5	rack travel mm : 7.30 Rated speed rpm : 300
Tolerance	nated speed rpm . 300
cm3/1000 strokes : 2.5	
Check tolerance + cm3/1000s. : 3.0 +	TORQUE CONTROL
DATES ODEED	Rated speed rpm : 1100
RATED SPEED	rack travel mm : 13.35 Tolerance mm : + 0.05
control lever	Rated speed rpm : 2000
position degree : 50.0	rack travel mm : 12.75
	Tolerance mm : + 0.15
rack travel mm : 8.70 + Rated speed rpm : 2700 +	Rated speed rpm : 2500
Tatoa opeca i piii	rack travel mm : 12.25
rack travel mm : 1.00	Tolerance mm : +- 0.15
Tolerance mm : + 1.00 + Rated speed rpm : 3000 +	Rated speed rpm : 500
nated speed (pill . 3000 T	hated speed ipil . Dou

maal Amarial ma	. 40 ED	1 Chart talamana
rack travel mm	: 12.50 : +- 0.15	+ Check tolerance
Tolerance mm	; +- 0.15	+ cm3/1000s. : +- 2.0
Debad seed see	. 000	Spreed
Rated speed rpm	300	Tolerance
rack travel mm		+ cm3/1000 strokes : 2.5
Tolerance mm	: ← 0.15	+ Check tolerance
		+ cm3/1000s. : 3.0
A	/	†
ADJUSTMENT TEST	ADA/ALDA	+ Ref. pressure
0=====		ALDA / ADA hPa : 1100
SETTING		Rated speed rpm : 500
D. 1 . 1 1	4400	+ Del. quantity
Rated speed rpm		cm3/1000 strokes : 32.6
Ref. pressure	. 0/0	+ Tolerance
ALDA / ADA hPa	: 940	+ cm3/1000 strokes : + 0.8
rack travel mm	: -0.10	t Check tolerance
Tolerance mm	: +- 0.10	+ cm3/1000s. : +- 1.8
MES OF IDEMPARE		+ Tolerance
MEASUREMENT		+ cm3/1000 strokes : 2.5
Datad annual are	: 1100	Del. quantity cm3/1000 strokes : 32.6 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100
Rated speed rpm	: 1700	+ cm3/1000s. : 3.0
Ref. pressure	: 900	Tof management
ALDA / ADA hPa rack travel mm	: -0.40	+ Ref. pressure + ALDA / ADA hPa : 1100
Tolerance mm	: -0.40 : +- 0.10	+ Rated speed rpm : 900
rocerance min	: 0.10	
Poted speed spm	: 1100	+ Del. quantity + cm3/1000 strokes : 36.9
Rated speed rpm	: 1100	+ Tolerance
Ref. pressure ALDA / ADA hPa	: 750	- cm3/1000 strokes : +- 0.8
rack travel mm	: -1.50	Check tolerance
Tolerance mm	: +- 0.20	cm3/1000s. : +- 1.8
rocerance min	. 45 0.20	Spreed
		Tolerance
		+ Tolerance
FUEL DELTVERY CHI	APACTERISTICS	+ cm3/1000 strokes : 2.5
FUEL DELIVERY CHA	ARACTERISTICS	cm3/1000 strokes : 2.5 Check tolerance
	ARACTERISTICS	+ cm3/1000 strokes : 2.5
Ref. pressure		cm3/1000 strokes : 2.5 Check tolerance
Ref. pressure ALDA / ADA hPa	: 1100	cm3/1000 strokes : 2.5 Check tolerance
Ref. pressure ALDA / ADA hPa Rated speed rpm	: 1100 : 2000	- cm3/1000 strokes : 2.5 - Check tolerance - cm3/1000s. : 3.0
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity	: 1100 : 2000	cm3/1000 strokes : 2.5 Check tolerance
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 1100 : 2000	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 1100 : 2000 : 40.1	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1100 : 2000 : 40.1	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1100 : 2000 : 40.1 : +- 0.8	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1100 : 2000 : 40.1 : + 0.8	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1100 : 2000 : 40.1 : +- 0.8	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 1100 : 2000 : 40.1 : + 0.8 : + 1.8	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 1100 : 2000 : 40.1 : + 0.8 : + 1.8	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 1100 : 2000 : 40.1 : ← 0.8 : ← 1.8	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 1100 : 2000 : 40.1 : ← 0.8 : ← 1.8	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 1100 : 2000 : 40.1 : ← 0.8 : ← 1.8	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.60
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa	: 1100 : 2000 : 40.1 : + 0.8 : + 1.8 : 2.5 : 3.0	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 55.0 Tolerance
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Ref. pressure	: 1100 : 2000 : 40.1 : + 0.8 : + 1.8 : 2.5 : 3.0	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 55.0 Tolerance cm3/1000 strokes : + 4.0
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa	: 1100 : 2000 : 40.1 : + 0.8 : + 1.8 : 2.5 : 3.0	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 55.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity	: 1100 : 2000 : 40.1 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1100 : 2500	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 55.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 5.0
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed	: 1100 : 2000 : 40.1 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1100 : 2500	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 55.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 5.0 Spreed
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes Tolerance	: 1100 : 2000 : 40.1 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1100 : 2500 : 39.5	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 55.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes	: 1100 : 2000 : 40.1 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1100 : 2500 : 39.5	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 55.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 5.0 Spreed
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes Tolerance	: 1100 : 2000 : 40.1 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1100 : 2500 : 39.5	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 HIGH IDLE Ref. pressure ALDA / ADA hPa : 1100 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 21.60 Tolerance mm : + 1.50 Del. quantity cm3/1000 strokes : 55.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance

Check tolerance 6.0 cm3/1000s. LOW IDLE Rated speed rpm 300 7.30 rack travel mm Tolerance mm 0.15 Del. quantity cm3/1000 strokes : 9.5 Check tolerance cm3/1000s. 2.3 Spreed Check tolerance 1.5 cm3/1000s. SETTING PNEUMATIC FAST IDLE (ELA) control lever position degree : tolerance degree : + 2.0 SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR) control lever position degree 10.5 tolerance degree : +-2.0 315 Rated speed rpm Rack travel in mm : 13.20 Tolerance mm : +- 0.70 Del. quantity cm3/1000 strokes : 34.0 Tolerance cm3/1000 strokes : +-3.5 Current A 1.80 : control lever 50.0 position degree 3000 Rated speed rpm Rack travel in mm: 1.00 1.00 Tolerance mm Current shortduration A 3.00

Rated speed rpm : 100

Current A : 1.80

ADJUSTMENT

control lever

position degree : 50.0

Rated speed rpm : 1100 rack travel mm : 1.70 Tolerance mm : + 0.20

TESTING PNEUMATIC SHUTOFF DEVICE

Rated speed rpm : 300

End of test specification sheet

Starting test

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 10.01.96 : ISO 4113

Combination No. : 0 400 836 036

Injection pump

Pump designation : PES6A85D410/3RS2761

EP type number : 0 410 886 895

Governor

Governer design. : RQV300...1250AB1188

: -1L

: 0 420 212 205 Governer no.

Cust. part No. :

Customer-spec. information

Customer : KHD Motor : BF6L913

Power KW : 118.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : **←** 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm : 2.55 : +- 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 12.35

Tolerance mm : \div 0.05

Del. quantity

cm3/1000 strokes : 88.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : +- 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance	+	
cm3/1000s.	: 7.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm	: 300	Rated speed rpm : 1250
Rack travel in mm	7.80	Aneroid pressure
Tolerance mm Del. quantity	1 - 0.10	hPa : 700 Del. quantity
cm3/1000 strokes Tolerance	: 13.0	cm3/1000 strokes : 88.0 Tolerance
cm3/1000 strokes Check tolerance	: + 2.0	cm3/1000 strokes : +- 0.5 Check tolerance
cm3/1000s. Spreed	: + 4.0	cm3/1000s. : +- 2.5 Spreed
Tolerance	4	Tolerance
cm3/1000 strokes Check tolerance		cm3/1000 strokes : 3.0 Check tolerance
cm3/1000s.		cm3/1000s. : 7.0
	Ţ	
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	CONTROL LEVER
-		control lever
GUIDE SLEEVE TRAV	EL	position degree : 125.0 tolerance degree : +- 4.0
Rated speed rpm guide sleeve	: 300	RATED SPEED
travel mm	: 1.35	
Tolerance mm	: + 0.05	rack travel mm : 11.30 Rated speed rpm : 1295
Rated speed rpm guide sleeve	: 1300	Tolerance 1/min : + 5
travel mm	: 8.95	rack travel mm : 4.00
Tolerance mm	: + 0.05	Rated speed rpm : 1395 Tolerance 1/min : +- 15
Rated speed rpm guide sleeve	: 380	rack travel mm : 0.50
travel mm	: 2.60	Tolerance mm : +- 0.50
Tolerance mm	: + 0.10	Rated speed rpm : 1500
Rated speed rpm guide sleeve	+	
travel mm Tolerance mm	: 3.20 : + 0.10	LOW IDLE
roterance min	+	
Rated speed rpm guide sleeve	: 1390	control lever position degree : 72.0
travel mm	: 10.15	tolerance degree : +- 4.0
Tolerance mm	: +- 0.05	Testing:
GUIDE SLEEVE POSI	TION	Rated speed rpm : 300
Rated speed rpm	: 1265	rack travel mm : 7.80 Tolerance mm : +- 0.10
Rack travel in mm Tolerance mm		Rated speed rpm : 100
	+	CRT mm min. :> 9.30
	•	

Rated speed rpm	: 405	+ Aneroid pressure
TORQUE CONTROL		
Dimension a mm Rated speed rpm	: 0.80 : 1250	Del. quantity cm3/1000 strokes : 89.5 Tolerance
rack travel mm Tolerance mm	: 12.35	cm3/1000 strokes : +- 1.5 Check tolerance
Rated speed rpm rack travel mm		+ cm3/1000s. : + 3.5 + Aneroid pressure
loterance mm	: +- 0.05	hPa : - Rated speed rpm : 500
Rated speed rpm rack travel mm Tolerance mm	: 12.90	+ Del. quantity + cm3/1000 strokes : 63.0 + Tolerance
Rated speed rpm	: 820	cm3/1000 strokes : +- 0.5 Check tolerance
rack travel mm Tolerance mm	: + 0.10	cm3/1000s. : +- 2.5
ANEROID/ALTITUDE		BREAKAWAY
COMPENSATOR TEST SETTING		Rack travel in mm : 11.30 Rated speed rpm : 1295 Tolerance 1/min : +- 5
Rated speed rpm Pressure hPa		<u> </u>
rack travel mm Tolerance mm	: 12.90	STARTING FUEL DELIVERY
MEASUREMENT		+ Rated speed rpm : 100 + rack travel mm : 17.20 + Tolerance mm : + 0.20
Pressure hPa Rated speed rpm rack travel mm	: 11.35	Del. quantity cm3/1000 strokes : 125.0 Tolerance
	: + 0.10 : 500	- cm3/1000 strokes : +- 7.5 - Check tolerance - cm3/1000s. : +- 10.0
Rated speed rpm Pressure hPa	: 350	
rack travel mm Tolerance mm	: 11.70 : +- 0.05	LOW IDLE
START CUT-OUT		Rated speed rpm : 300
Rated speed rpm Rated speed rpm		rack travel mm : 7.80 Tolerance mm : +- 0.10 Del. quantity
Check speed 1/min	: > 80	- cm3/1000 strokes : 13.0 - Tolerance - cm3/1000 strokes : +- 2.0
Check speed 1/min	: < 240	Check tolerance cm3/1000s. : +- 4.0
FUEL DELIVERY CHA	RACTERISTICS	+ Spreed + Tolerance + cm3/1000 strokes : 4.5

Check tolerance cm3/1000s.	:	7.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 03.01.96 Edition Test oil : ISO 4113

Combination No. : 0 401 876 735

Injection pump

Pump designation : PE6P12DA32DRS3D88 EP type number : 0 411 826 720

Governor

Governer design. : RSV200...1000P4/421R

Governer no. : 0 421 833 142

: 847612 PO9 v. 9/95 Cust. part No.

Customer-spec. information : PENTA Customer : TD120HP Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

: 1 417 413 010 Overflow valve

1.5 Inlet press. bar :

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

208.5 bar Tolerance bar 1.5

: 1 680 750 075 Test lines

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : + 1.0

Prestroke mm 2.45 Tolerance mm : **←** 0.05

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mm : **←** 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: + 0.30Tolerance

Check

: + 0.50tolerance 'NW

Start of delivery mark

Tolerance : +- 0.50

Check

tolerance °NW : + 0.75

: Barrel no. 1

BASIC SETTING

700 Rated speed rpm

11.90 Rack travel in mm :

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 180.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0	t control lever t position degree : 58.0
Spreed	tolerance degree : + 4.0
Tolerance cm3/1000 strokes : 6.0	control lever position degree : 108.0
Check tolerance cm3/1000s. : 9.0	tolerance degree : + 4.0 + RATED SPEED
Rated speed rpm : 250	+
Rack travel in mm : 4.10 Tolerance mm : +- 0.20 Del. quantity	rack travel mm : 10.90 Rated speed rpm : 1025 Tolerance 1/min : +- 5
cm3/1000 strokes : 18.0 Tolerance	rack travel mm : 4.00 Rated speed rpm : 1075
cm3/1000 strokes : +- 2.0 Check tolerance	Tolerance 1/min : +- 15
cm3/1000s. : +- 5.0 Spreed Tolerance	rack travel mm : 1.00 Tolerance mm : + 0.70 Rated speed rpm : 1210
cm3/1000 strokes : 5.0 Check tolerance	‡ .
cm3/1000s. : 7.0	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 72.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	control lever position degree : 22.0
Rated speed rpm : 800	+ tolerance degree : +- 4.0 +
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	Setting point w/out bumper spring
TOTO: GIFTON THE COLOR	Rated speed rpm : 250 rack travel mm : 3.60
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Testing:
Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity	Rated speed rpm : 250 rack travel mm : 4.10 Tolerance mm : +- 0.10
cm3/1000 strokes : 180.0	+
Tolerance cm3/1000 strokes : +- 1.0 Check tolerance	rack travel mm : 2.00 Rated speed rpm : 310 Tolerance 1/min : + 30
cm3/1000s. : +- 4.0	Totalite Mills . F- 30
Spreed Tolerance cm3/1000 strokes : 6.0	TORQUE CONTROL
Check tolerance	Rated speed rpm : 700
cm3/1000s. : 9.0	rack travel mm : 11.90 Tolerance mm : +- 0.05
	<u>-1-</u>

CONTROL LEVER

BREAKAWAY

Rack travel in mm: 10.90
Rated speed rpm: 1025
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.50
Tolerance mm : + 0.50
Del. quantity
cm3/1000 strokes : 415.0
Tolerance
cm3/1000 strokes : + 25.0
Check tolerance
cm3/1000s. : + 29.0

LOW IDLE

250 Rated speed rpm 4.10 rack travel mm 0.20 Tolerance mm Del. quantity cm3/1000 strokes 18.0 Tolerance 2.0 cm3/1000 strokes Check tolerance 5.0 cm3/1000s. Spreed Tolerance 5.0 cm3/1000 strokes Check tolerance cm3/1000s. 7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 22,12,95 Test oil : ISO 4113

Combination No. : 0 402 046 871

Injection pump

Pump designation : PES6P12DA72ORS3356 EP type number : 0 412 026 783

Governor

Governer design. : RQV450...1050PA1245

: 0 421 814 161 Governer no.

Cust. part No.

Customer-spec. information

: IVECO-FRANCE Customer Motor : 8465.41.006

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

: 1 680 750 089 Test lines

Outside diameter : 8.0

x inside diameter: 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

tolerance mm

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm 3.55 Tolerance min : +- 0.05Check : + 0.10

Rack travel in mm: 10.50

Firing order : 1-5-3-6-2-

: 4

Phasina : 0-60-120-180-240

: -300

: + 0.30Tolerance

Check

tolerance °NW : + 0.50

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 9.35 Tolerance mm : + - 0.05

Del. quantity

cm3/1000 strokes : 158.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance

5.0 cm3/1000 strokes :

Check tolerance		+ +		
cm3/1000s.	: 9.0	+ FULL	LOAD DELIVERY	Y AT FULL LOAD STOP
Rated speed rpm	: 450	† Bata	od opood nom	: 1050
Rack travel in mm	: > 5.00		ed speed rpm roid pressure	: 1050
Tolerance mm	: - 0.20	+ hPa	·	: -
Del. quantity cm3/1000 strokes	: 24.0		. quantity /1000 strokes	: 158.0
Tolerance		+ Tole	erance	
cm3/1000 strokes Check tolerance	: +- 3.0		/1000 strokes ck tolerance	: + 1.0
cm3/1000s.	: ← 6.0		10005.	: +- 4.0
Spreed		+ Spre		
Tolerance cm3/1000 strokes	: 8.0		erance /1000 strokes	: 5.0
Check tolerance		+ Chec	k tolerance	
cm3/1000s.	: 12.0	± cm3/	1000s.	: 9.0
		1		
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	CONT	FROL LEVER	
		_ t ront	crol lever	
GUIDE SLEEVE TRAV	EL	+ posi	ition degree	
Pated speed nom	: 450	† tole	erance degree	: +- 4.0
Rated speed rpm guide sleeve	. 1450	T RATE	D SPEED	
travel mm	: 2.70	+		0.70
Tolerance mm	: + 0.20	1	travel mm ed speed rpm	: 8.30 : 1135
Rated speed rpm	: 1110		erance 1/min	· + 5
guide sleeve travel mm	: 7.40	† nack	travel mm	: 4.00
Tolerance mm	: +- 0.15		d speed rpm	: 1225
	. 07/	+ Tole	rance 1/min	: ← 15
Rated speed rpm guide sleeve	: 836	‡ rack	travel mm	: 0.50
travel mm	: 5.75	+ Tole	rance mm	: +- 0.50
Tolerance mm	: +- 0.25	† Rate	d speed rpm	: 1400
Rated speed rpm	: 580	Ŧ		
guide sleeve travel mm	: 3.80	1 104	IDLE	
Tolerance mm	: +- 0.25	+ 20"	1000	
Rated speed rpm	: 1550	t	rol lever	
guide sleeve	. 1550		tion degree	: 71.0
travel mm	: 11.50	† tole	rance degree	: +- 4.0
Tolerance mm	: +- 0.50	Test	ing:	
GUIDE SLEEVE POSIT	TION	- † Rate	d speed rpm	: 450
		→ rack	travel mm	: 5.00
Rated speed rpm	: 1405	† Tole	rance mm	: +- 0.10
Rack travel in mm		Rate	d speed rpm	: 350
Tolerance mm		t cor .	mm min.	: > 6.50
		I CRIT	ARB 18111.	0.30
		•		

Rated speed rpm : 515

TORQUE CONTROL

1050 Rated speed rpm 9.35 rack travel mm : +- 0.05 Tolerance mm

Rated speed rpm 800 9.85 rack travel mm : + - 0.10Tolerance mm

Rated speed rpm 950 rack travel mm : 9.55 : +- 0.10 Tolerance mm

Rated speed rpm : 600 rack travel mm 9.90 Tolerance mm : + 0.15

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm 800

Del. quantity

cm3/1000 strokes : 170.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 5.0

BREAKAWAY

Rack travel in mm : 8.30 Rated speed rpm : 1135 Tolerance 1/min

STARTING FUEL DELIVERY

100 Rated speed rpm 19.50 rack travel mm : +- 1.50 Tolerance mm

Del. quantity

cm3/1000 strokes : 130.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance

cm3/1000s. : + 19.0 LOW IDLE

Rated speed rpm 450 rack travel mm : > 5.00 : +- 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 24.0 Tolerance

cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. • +-6.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 09.01.96 : ISO 4113

Combination No. : 0 402 076 759

Injection pump

Pump designation : PES6P120A720RS3322

EP type number : 0 412 026 764

Governor

Governer design. : RSV650...1250P8A567

Governer no. : 0 421 833 416

Cust. part No.

Customer-spec. information

Customer

: FNH-GEOTECH

Power KW

: 201.0

TEST BENCH REQUIREMENTS

Inlet line

: 4.2

Test oil inlet

temp. °C

Tolerance *C

2.0

Overflow valve : 2 417 413 086

Inlet press. bar :

Test nozzle holde

assembly

: 1 688 901 103

Opening pressure

bar

208.5

1.5

Tolerance bar

Test lines

: 1 680 750 089

Outside diameter :

8.0

x inside diameter:

3.0

F04

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 3.60

: + - 0.05Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

: + 0.30Tolerance

Check

tolerance *NW : **+-** 0.50

Start of delivery blocking

Check

tolerance °NW : +- 0.30

Barrel no.

1 :

BASIC SETTING

Rated speed rpm

1250

Rack travel in mm :

11.65

Tolerance mm

: **←** 0.10

Del. quantity

cm3/1000 strokes :

157.5

Tolerance cm3/1000 strokes : +- 1.0	Tolerance cm3/1000 strokes : 5.0 Check tolerance
Check tolerance cm3/1000S. : + 4.0	cm3/1000s. : 9.0
Spreed Tolerance cm3/1000 strokes : 5.0	CONTROL LEVER
Check tolerance cm3/1000s. : 9.0	position degree : 109.0 tolerance degree : + 4.0
Rated speed rpm : 650	T RATED SPEED
Rack travel in mm : 4.80 Tolerance mm : + 0.20	Rated speed rpm : 1330
Del. quantity cm3/1000 strokes : 21.0	ASSEMBLY GOVERNOR SETTING
Tolerance cm3/1000 strokes : +- 3.0 Check tolerance	Rated speed rpm : 1293 rack travel mm : 10.65
cm3/1000s. : +- 6.0 Spreed Tolerance	Rated speed rpm : 1325 Tolerance 1/min : + 5 rack travel mm : 4.00
cm3/1000 strokes : 8.0 Check tolerance	rack travel mm : 0.85
cm3/1000s. : 12.0	+ Tolerance mm : +- 0.55 + Rated speed rpm : 1500
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1294 rack travel mm : 10.65
	Rated speed rpm : 1326 Tolerance 1/min : + 5
GUIDE SLEEVE POSITION	rack travel mm : 4.00
Rated speed rpm : 800	rack travel mm : 0.85 Tolerance mm : +- 0.55
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	+ Rated speed rpm : 1295 + rack travel mm : 10.65
governor spring pre-tension	Rated speed rpm : 1327
click setting x : 3.00	+ Tolerance 1/min : +- 5 + rack travel mm : 4.00
FULL LOAD DELIVERY AT FULL LOAD ST	OP rack travel mm : 0.85 Tolerance mm : + 0.55
Rated speed rpm : 1250 Aneroid pressure	Rated speed rpm : 1296
hPa : 1000 Del. quantity	rack travel mm : 10.65
cm3/1000 strokes : 157.5 Tolerance	+ Rated speed rpm : 1328 + Tolerance 1/min : +- 5
cm3/1000 strokes : + 1.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : +- 4.0 Spreed	+ rack travel mm : 0.85 + Tolerance mm : + 0.55 +

Rated speed rpm : 1297 - rack travel mm : 10.65 -	
Rated speed rpm : 1329	- ANEROID/ALTITUDE - COMPENSATOR TEST
Tolerance 1/min : + 5 rack travel mm : 4.00	L COM ENGLIOR TEST
-	SETTING
rack travel mm : 0.85 - Tolerance mm : + 0.55 -	- Rated speed rpm : 500 - Pressure hPa : 1000
Rated speed rpm : 1298 rack travel mm : 10.65	Pressure hPa : 1000 - rack travel mm : 12.10 - Tolerance mm : +- 0.10
Rated speed rpm : 1330 - Tolerance 1/min : +- 5	MEASUREMENT
rack travel mm : 4.00	- Pressure hPa : - - Rated speed rpm : 500
rack travel mm : 0.85	- Rated speed rpm : 500 - rack travel mm : 7.90
Tolerance mm : +- 0.55	rack travel mm : 7.90 Tolerance mm : +- 0.10
LOW IDLE	- Rated speed rpm : 500
	- Pressure hPa : 490
	rack travel mm : 11.05
control lever position degree : 79.0 tolerance degree : + 4.0	Tolerance mm : + 0.05
Setting point w/out bumper spring	- START CUT-OUT
+	- Rated speed rpm :> 100
Rated speed rpm : 650 + rack travel mm : 4.30 + rack travel mm : 4.30	- Check
Testing:	- speed 1/min : > 80 -
Rated speed rpm : 650	FUEL DELIVERY CHARACTERISTICS
rack travel mm : 4.80 + Tolerance mm : + 0.10 +	- - Aneroid pressure
+	- hPa : 1000
rack travel mm : 2.00	Rated speed rpm : 900
Rated speed rpm : 770 + Tolerance 1/min : + 50 +	Del. quantity cm3/1000 strokes : 176.0
TODOUG DON'TOO!	Tolerance cm3/1000 strokes : + 3.0
TORQUE CONTROL	- Check tolerance - cm3/1000S. : +- 6.0
Rated speed rpm : 1250	
rack travel mm : 11.65 + Tolerance mm : + 0.10	· Aneroid pressure · hPa : -
+	Rated speed rpm : 500
Rated speed rpm : 900	Del. quantity
Rated speed rpm : 900 rack travel mm : 12.10 Tolerance mm : + 0.10	cm3/1000 strokes : 84.5 Tolerance
+	cm3/1000 strokes : +- 1.0
Rated speed rpm : 700	Check tolerance
rack travel mm : 12.15 + Tolerance mm : +- 0.15 +	cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 20.50 Tolerance mm : +- 0.50 Del. quantity cm3/1000 strokes : 210.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

650 Rated speed rpm 4.80 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance 8.0 cm3/1000 strokes : Check tolerance 12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 26,10.95 : ISO 4113

Combination No. : 0 402 610 802

Injection pump

Pump designation: PE12P12OA500/6LS7866

EP type number : 0 412 620 836

Governor

Governer design. : Governer no.

Cust. part No. : 0240742902

Customer-spec, information

Customer

: MTU

Motor

: 12V183-02

TEST BENCH REQUIREMENTS

Inlet line

: 3.1,3.2

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve

: 1 417 413 025

Inlet press. bar :

1.5

Overflow quantity

min. L/h

110

Tolerance l/h

: +- 10.0

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

208.5

Tolerance bar

Test lines

: 1 680 750 075

Outside diameter : 8.0

x inside diameter :

3.0

x length mm

: 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

4.45 Prestroke mm : + 0.05Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 20.50

Tolerance mm : + 0.50

: 12-1-5-9-8 Firing order

: - 3- 4- 11- 10 : - 2- 6- 7

: 0-45-60-105-120 Phasing

: -165-180-225-240

: -285-300-345

Tolerance : + 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

Barrel no.

12

BASIC SETTING

Rated speed rpm

750

Rack travel in mm: 10.45

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes :

184.0

F08

Tolerance cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s.	: + 4.0
Spreed Tolerance cm3/1000 strokes	: 8.0
Check tolerance cm3/1000s.	: 11.0
Rated speed rpm	: 300
Rack travel in mm Tolerance mm Del. quantity	: 6.00 : + 0.20
cm3/1000 strokes Tolerance	: 18.0
cm3/1000 strokes Check tolerance	: ← 3.0
cm3/1000s. Spreed	: + 6.1
Tolerance cm3/1000 strokes	: 10.0
Check tolerance cm3/1000s.	: 14.0
(B) SETTING OF IN	JECTION PUMP

(B) SETTING OF INJECTION PUMP WITH GOVERNOR

FULL LOAD DELIVERY AT FULL LOAD STOP

Aneroid pressure hPa	:		
Del. quantity cm3/1000 strokes	:	184.0	
Tolerance cm3/1000 strokes	:	+- 1.0	
Check tolerance cm3/1000s.	:	+- 4.0	
Spreed Tolerance cm3/1000 strokes	:	8.0	
Check tolerance cm3/1000s.	:	11.0	

TORQUE CONTROL

Rated speed rpm	:	750
rack travel mm	:	10.45
Tolerance mm	: +	- 0.05

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 300 : 6.00 : ← 0.20	
cm3/1000 strokes	: 18.0	
Tolerance cm3/1000 strokes Check tolerance	: ← 3.0	
cm3/1000s.	: + 6.1	
Spreed Tolerance		
cm3/1000 strokes	: 10.0	
Check tolerance cm3/1000s.	: 14.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 08.01.96 : ISO 4113 Test oil

Combination No. : 0 402 640 812

Injection pump

Pump designation : PE12P12OA52OLS782O

EP type number : 0 412 620 814

Governor

Governer design. : RQV350...1150PA870

: -4

: 0 421 813 717 Governer no.

Cust. part No. : 0170742602

Customer-spec, information Customer : MB-NFZ Motor : OM 444 LA Power KW : 736.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 2 417 413 077

1.5 Inlet press. bar : Tolerance bar 0.1

Tolerance L/h : +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar : +- 1.5 Tolerance bar

Test lines : 1 680 750 075

Outside diameter : 8.0

2.5 x inside diameter :

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 4.45 Tolerance mm : + 0.05Check

: + 0.10tolerance mm

Rack travel in mm: 20.00 : +- 1.00 Tolerance mm

Firing order : 12- 1- 5- 9- 8

: - 3- 4- 11- 10 : - 2- 6- 7

: 0-45-60-105-120 Phasing

> : -165-180-225-240 : -285-300-345

: + - 0.30Tolerance

Check

tolerance °NW : +- 0.50

Start of delivery mark

12 Barrel no.

BASIC SETTING

Rated speed rpm 1150

Rack travel in mm : 15.30 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 306.0

		+ Tolerance mm : + 0.25
Tolerance cm3/1000 strokes	: +- 1.0	<u> </u>
Charle to Language		+ GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: +- 4.0	Rated speed rpm : 1275
Spreed		Rack travel in mm : 16.50
Tolerance		† Tolerance mm : + 1.30
cm3/1000 strokes	: 6.0	<u> </u>
Check tolerance		+ FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 10.0	+
Dotad anned nom	: 350	Rated speed rpm : 1150
Rated speed rpm	: 350	+ Aneroid pressure + hPa : 1300
Rack travel in mm	n: 5.60	Del. quantity
Tolerance mm		+ cm3/1000 strokes : 306.0
Del. quantity		† Tolerance
cm3/1000 strokes	: 15.0	+ cm3/1000 strokes : + 1.0
Tolerance	7.0	+ Check tolerance
cm3/1000 strokes Check tolerance	: +- 3.0	+ cm3/1000s. : + 4.0 + Spreed
cm3/1000s.	: +- 6.0	+ Tolerance
Spreed	0.0	+ cm3/1000 strokes : 6.0
Tolerance		+ Check tolerance
cm3/1000 strokes	: 8.0	+ cm3/1000s. : 10.0
Check tolerance	40.0	†
cm3/1000s.	: 12.0	†
		CONTROL LEVER
(B) SETTING OF IN	JECTION PUMP	+
WITH GOVERNOR		† control lever
		+ position degree : 117.0
GUIDE SLEEVE TRAV	El	tolerance degree : +- 4.0
GOTAE SPEEAE LKWA		T RATED SPEED
Rated speed rpm	: 350	+
guide sleeve		rack travel mm : 14.30
travel mm	: 1.55	+ Rated speed rpm : 1195
Tolerance mm	: +- 0.15	† Tolerance 1/min : +- 5
Rated speed rpm	: 1206	rack travel mm : 4.00
guide sleeve	233	Rated speed rpm : 1285
travel mm	: 8.15	+ Tolerance 1/min : +- 15
Tolerance mm	: +- 0.20	+
D-4-dd	. (00	rack travel mm : 0.50
Rated speed rpm guide sleeve	: 600	+ Tolerance mm : +- 0.50 + Rated speed rpm : 1350
travel mm	: 3.55	T Rated speed (pill : 1550
Tolerance mm	: + 0.25	4
Rated speed rpm	: 960	+ LOW IDLE
guide sleeve		†
travel mm Tolerance mm	: 5.55 : +- 0.25	t control lever
TOTE OF THE	0.22	position degree : 66.0
Rated speed rpm guide sleeve	: 1291	tolerance degree : + 4.0
travel mm	: 10.05	+ Testing:

Ontrol mand our	. 750	+ Check
Rated speed rpm rack travel mm	: 350 : 5.60	+ speed 1/min : < 330
Tolerance mm	: + 0.10	
		FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 250	+ Aneroid pressure
CRT mm min.	: > 7.30	+ hPa : 1300
W**** (1844) 117 **********************************		Rated speed rpm : 750
Rated speed rpm	: 475	+ Del. quantity
		+ cm3/1000 strokes : 315.0
TORQUE CONTROL		Tolerance + cm3/1000 strokes : +- 5.0
TORQUE CONTROL		+ Check tolerance
Rated speed rpm	: 1150	+ cm3/1000s. : + 8.0
rack travel mm	: 15.30	→ Spreed
Tolerance mm	: +- 0.05	† Tolerance
		+ cm3/1000 strokes : 10.0
Rated speed rpm	: 750 : 15.40	+ Check tolerance
rack travel mm Tolerance mm	: + 0.10	t cm3/1000s. : 15.0
rocerance man	. 1 5 0.10	Aneroid pressure
·		hPa : 1300
ANEROID/ALTITUDE		+ Rated speed rpm : 1150
COMPENSATOR TEST		† Del. quantity
		+ cm3/1000 strokes : 234.5
ne trans		+ Tolerance
SETTING		+ cm3/1000 strokes : +- 1.5 + Check tolerance
Rated speed rpm	: 500	- cm3/1000s. : + 4.5
Pressure hPa		+ Spreed
rack travel mm		+ Tolerance
Tolerance mm	: ← 0.05	+ cm3/1000 strokes : 10.0
		+ Check tolerance
MEASUREMENT		+ cm3/1000s. : 15.0
Pressure hPa		Aneroid pressure
Rated speed rpm	500	hPa : -
rack travel mm	8.45	Rated speed rpm : 500
Tolerance mm	: + 0.15	+ Del. quantity
		+ cm3/1000 strokes : 124.0
Rated speed rpm	: 500	+ Tolerance
Pressure hPa	: 300	+ cm3/1000 strokes : +- 1.0 + Check tolerance
rack travel mm	: 10.20	- cm3/1000s. : +- 4.0
Tolerance mm		Spreed
		Tolerance
Pressure hPa	: 1100	+ cm3/1000 strokes : 10.0
rack travel mm	: 13.80	+ Check tolerance
Tolerance mm	: + 0.15	+ cm3/1000s. : 15.0
		<u> </u>
START CUT-OUT		T BREAKAWAY
		+
Rated speed rpm		+
Rated speed rpm	: < 310	+ Rack travel in mm: 14.30
Ob a all		+ Rated speed rpm : 1195
Check	: > 180	+ Tolerance 1/min : +- 5
speed 1/min	: > 180	I

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 331.0
Tolerance

cm3/1000 strokes : + 10.0 Check tolerance

cm3/1000s. : +- 14.0

LOW IDLE

350 Rated speed rpm rack travel mm 5.60 Tolerance mm +- 0.30 Del. quantity 15.0 cm3/1000 strokes : Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes 8.0 Check tolerance 12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 04.01.96 Test oil Edition : ISO 4113

Combination No. : 0 402 746 604

Injection pump

Pump designation : PES6P12DA72ORS7366 EP type number : 0 412 726 933

Governor

Governer design. : RQV275...1100PA1208

: -1K

Governer no. : 0 421 815 492

Cust. part No. :

Customer-spec. information

Customer : IVECO-FRANCE Motor : 8460.41c-3000

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : Inlet press. bar : 2.5 Tolerance bar : +- 0.1 2.5

Overflow quantity

min. L/h : 160 Tolerance l/h: +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: ← 0.30 Tolerance

Check

tolerance °NW : + 0.50

Start of delivery mark

Check

tolerance *NW : +- 0.40

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 11.65 Tolerance mm : + 0.05

Nal minamatika		
Del. quantity		+ guide sleeve
cm3/1000 strokes	: 235.0	+ travel mm : 13.50
		+ Tolerance mm : +- 0.50
Tolerance		- Total and the film
cm3/1000 strokes	: +- 1.0	
CIB) 1000 SCI OKES		GUIDE SLEEVE POSITION
Check tolerance		T GOIDE SEELVE POSITION
cm3/1000s.	; 4.0	Rated speed rpm : 1295
CIII 7 10003.	. + 4.0	Rated speed rpm : 1295
Spreed		Rack travel in mm: 10.65
Tolerance		Tolerance mm : +- 2.70
cm3/1000 strokes	: 5.0	Total and the 2.70
CIID/ 1000 Strokes	. 5.0	<u></u>
Check tolerance		FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 9.0	T FOLL LOAD DELIVERY AT FOLL LOAD STOP
Cm3/10003.	: 9.0	Rated speed rpm : 1100
Dated around name	: 275	+ Aneroid pressure
Rated speed rpm	: 275	
Rack travel in mm	: 6.40	
	: +- 0.20	+ Del. quantity + cm3/1000 strokes : 235.0
Tolerance mm	0.20	
Del. quantity cm3/1000 strokes	: 19.0	+ Tolerance + cm3/1000 strokes : +- 1.0
Tolerance	. 19.0	+ Check tolerance
cm3/1000 strokes	30	+ cm3/1000s. : + 4.0
Check tolerance	: 5.0	- Spreed - 4.0
cm3/1000s.	: +- 6.0	Tolerance
	: 0.0	+ cm3/1000 strokes : 5.0
Spreed Tolerance		- Check tolerance
cm3/1000 strokes	: 8.0	+ cm3/1000s. : 9.0
	: 0.0	† CM3/10003 7.0
Check tolerance cm3/1000S.	: 12.0	T
cm3/10008.	: 12.0	To a contract the second of th
		CONTROL & FUED
(D) CETTING OF TH	LECTION DUMP	+ CONTROL LEVER
(B) SETTING OF IN	DECITON FOME	T control loves
WITH GOVERNOR		+ control lever
		position degree : 118.0
		+ tolerance degree : +- 4.0
CUIDE OF EDAY	FI	
GUIDE SLEEVE TRAV	EL	+
		RATED SPEED
Rated speed rpm	EL : 275	RATED SPEED
Rated speed rpm guide sleeve	: 275	RATED SPEED : 10.60
Rated speed rpm guide sleeve travel mm	: 275 : 1.70	RATED SPEED rack travel mm : 10.60 Rated speed rpm : 1145
Rated speed rpm guide sleeve	: 275	RATED SPEED : 10.60
Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.70 : + 0.20	RATED SPEED rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.70	RATED SPEED rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : +- 5 rack travel mm : 4.00
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 275 : 1.70 : + 0.20 : 1180	RATED SPEED rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1245
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 275 : 1.70 : + 0.20 : 1180 : 10.07	RATED SPEED rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : +- 5 rack travel mm : 4.00
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 275 : 1.70 : + 0.20 : 1180	rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : +- 15
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.70 : + 0.20 : 1180 : 10.07 : + 0.15	rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : + 15 rack travel mm : 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 275 : 1.70 : + 0.20 : 1180 : 10.07	RATED SPEED rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 275 : 1.70 : + 0.20 : 1180 : 10.07 : + 0.15 : 802	rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : + 15 rack travel mm : 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 275 : 1.70 : + 0.20 : 1180 : 10.07 : + 0.15 : 802 : 6.49	RATED SPEED rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 275 : 1.70 : + 0.20 : 1180 : 10.07 : + 0.15 : 802	RATED SPEED rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	: 275 : 1.70 : + 0.20 : 1180 : 10.07 : + 0.15 : 802 : 6.49 : + 0.25	rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1350
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.70 : + 0.20 : 1180 : 10.07 : + 0.15 : 802 : 6.49	RATED SPEED rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.70 : + 0.20 : 1180 : 10.07 : + 0.15 : 802 : 6.49 : + 0.25 : 460	rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1350
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.70 : + 0.20 : 1180 : 10.07 : + 0.15 : 802 : 6.49 : + 0.25 : 460 : 3.77	rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : +- 15 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1350 LOW IDLE
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.70 : + 0.20 : 1180 : 10.07 : + 0.15 : 802 : 6.49 : + 0.25 : 460	rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : +- 15 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1350 LOW IDLE control lever
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.70 : + 0.20 : 1180 : 10.07 : + 0.15 : 802 : 6.49 : + 0.25 : 460 : 3.77	rack travel mm : 10.60 Rated speed rpm : 1145 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1245 Tolerance 1/min : +- 15 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1350 LOW IDLE

Testing:

Rated speed rpm : 275
rack travel mm : 6.40
Tolerance mm : + 0.10

Rated speed rpm : 175

CRT mm min. : > 7.90

Rated speed rpm : 315

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 11.65 Tolerance mm : + 0.05

Rated speed rpm : 800 rack travel mm : 11.40 Tolerance mm : + 0.10

Rated speed rpm : 550 rack travel mm : 11.30 Tolerance mm : + 0.10

Rated speed rpm : 500 rack travel mm : 11.30 Tolerance mm : + 0.20

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 1100
Pressure hPa : 1200
rack travel mm : 11.65
Tolerance mm : +- 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 1100
rack travel mm : 9.30
Tolerance mm : + 0.20

Rated speed rpm : 1100

Pressure hPa : 230 rack travel mm : 9.95 Tolerance mm : + 0.20

Pressure hPa : 360 rack travel mm : 11.15 Tolerance mm : + 0.05

START CUT-OUT

Rated speed rpm : > 180 Rated speed rpm : < 220

Check

speed 1/min : > 160 Check

speed 1/min : < 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1200 Rated speed rpm : 800

Del. quantity

cm3/1000 strokes : 215.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : +- 6.0

Aneroid pressure

hPa : 1200 Rated speed rpm : 550 Del. quantity

cm3/1000 strokes : 202.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

Aneroid pressure

hPa : Rated speed rpm : 550
Del. quantity

cm3/1000 strokes : 138.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 10.60
Rated speed rpm : 1145
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 11.90 Tolerance mm : + 0.50

Del. quantity cm3/1000 strokes : 115.0 Tolerance cm3/1000 strokes : +- 15.0 Check tolerance cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm 275 rack travel mm 6.40 Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.01.96 Test oil : ISO 4113

Combination No. : 0 403 466 176

Injection pump

Pump designation : PES6MW100/120RS1240

EP type number : 0 413 406 239

Governor

Governer design. : RSV400...1000MW2A396

Governer no. : 0 420 085 284

Cust. part No. : 3929174

Customer-spec. information

Customer : CDC

Motor : 6 CT-830 Power KW : 160.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.35 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance "NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 8.00

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.40 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 146.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance - cm3/1000s. : +- 4.0 -	Check tolerance : 7.5
Spreed Tolerance cm3/1000 strokes : 4.0	CONTROL LEVER
Check tolerance cm3/1000s. : 7.5	position degree : 92.0 tolerance degree : + 4.0
Rated speed rpm : 400	RATED SPEED
Rack travel in mm: 5.60 Tolerance mm: + 0.30 Del. quantity cm3/1000 strokes: 20.0	rack travel mm : 11.40 Rated speed rpm : 1045 Tolerance 1/min : +- 5
Tolerance - cm3/1000 strokes : +- 2.0 - Check tolerance -	rack travel mm : 4.00 Rated speed rpm : 1125 Tolerance 1/min : +- 15
cm3/1000s. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 3.5	- rack travel mm : 0.85 - Tolerance mm : +- 0.55 - Rated speed rpm : 1300
Check tolerance cm3/1000s. : 5.5	rack travel mm : 4.00 Rated speed rpm : 1135
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	
WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION Rated speed rpm : 800	LOW IDLE control lever position degree : 76.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65	control lever position degree : 76.0
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension	control lever position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring	control lever position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing:
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP	control lever position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200	control lever position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance cm3/1000 strokes : + 1.0	control lever position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.30
GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : + 0.35 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 146.0 Tolerance	control lever position degree : 76.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400 rack travel mm : 5.10 Testing: Rated speed rpm : 400 rack travel mm : 5.60 Tolerance mm : + 0.30 TORQUE CONTROL Rated speed rpm : 1000 rack travel mm : 12.40

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1200
rack travel mm : 12.40
Tolerance mm : +- 0.10

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 10.80
Tolerance mm : + 0.05

Rated speed rpm : 500

Pressure hPa : 750
rack travel mm : 11.80
Tolerance mm : + 0.15

Pressure hPa : 600 rack travel mm : 11.10 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 1200 Rated speed rpm 750 Del. quantity cm3/1000 strokes : 149.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 6.0

cm3/1000s. :

9.0

Aneroid pressure

Check tolerance

hPa : -Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 118.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 11.40
Rated speed rpm: 1045
Tolerance 1/min: + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : + 1.00
Del. quantity
cm3/1000 strokes : 145.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance
cm3/1000s : + 13.0

LOW IDLE

Rated speed rpm 400 rack travel mm 5.60 Tolerance mm 0.30 Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 3.5 cm3/1000 strokes : Check tolerance cm3/1000S.5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W490/...

Edition : 09.01.96 Test oil : ISO 4113

Combination No. : 0 403 474 025

Injection pump

Pump designation : PES4MW100/720RS1235

EP type number : 0 413 404 121

Governor

Governer design. : RSV350...1200MW0A346

: -3

Governer no. : 0 420 085 179

Cust. part No. : 0260740602

Customer-spec. information
Customer : MB-NFZ
Motor : OM_364 A

Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : + 0.50

Check

tolerance "NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 13.20

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 88.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

strokes : 3.3

Rated speed rpm : 350 Rack travel in mm: 7.00 Tolerance mm : + 0.40 Del. quantity Tolerance mm : + 0.40 Tolerance mm : + 0.40 Tolerance mm : + 0.40 Tolerance mm : + 0.40 Tolerance mm : + 0.40 Tolerance mm : + 0.40 Tolerance mm : + 0.40 Tolerance mm : + 0.70 Rated speed rpm : 1335 Tolerance cm3/1000 strokes : + 2.0 Check tolerance Cm3/1000 strokes : + 4.5 Spreed Tolerance Tolerance Cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes : 5.5 Rated speed rpm : 1240 Tack travel mm : 12.20 Rated speed rpm : 1240 Tack travel mm : 12.20 Rated speed rpm : 1240 Tack travel mm : 12.20 Rated speed rpm : 1241 Tack travel mm : 4.00 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1242 Tolerance 1/min : + 4 Tack travel mm : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1223 Tack travel mm : 12.20 Rated speed rpm : 1220 Aneroid pressure Pa : 700 Pel. quantity Tolerance Cm3/1000 strokes : 88.0 Tolerance Cm3/1000 strokes : 88.0 Tolerance Cm3/1000 strokes : 88.0 Tolerance Cm3/1000 strokes : 3.5 Check tolerance Cm3/10	Check tolerance	: 6.0	‡	tolerance degree	: + 4.0
Rack travel in mm : 7.00			+	RATED SPEED	
Rack travel in mm : 7.00	rated speed thin	. 550	I	rack travel mm	• 1.00
Tolerance mm	Rack travel in mm	. 7.00	1		
bel. quantity rack travel mm : 4.00 Tolerance cm3/1000 strokes : + 2.0 Check tolerance rack travel mm : 12.20 Check tolerance rack travel mm : 12.20 Charles Rated speed rpm : 1245 Tolerance Tolerance 1/min : + 8 Check tolerance ASSEMBLY GOVERNOR SETTING Check tolerance Rated speed rpm : 1240 cm3/1000s. : 5.5 Rated speed rpm : 1220 Check tolerance rack travel mm : 12.20 Check tolerance rack travel mm : 12.20 Check tolerance rack travel mm : 12.20 Rated speed rpm : 1240 rack travel mm : 12.20 Rated speed rpm : 1289 Tolerance 1/min : + 4 GUIDE SLEEVE POSITION Rated speed rpm : 1241 rack travel mm : 12.20 Rated speed rpm : 800 Rated speed rpm : 1290 Tolerance 1/min : + 4 rack travel mm : 12.20 Rated speed rpm : 1290			1		
cm3/1000 strokes: 12.0 rack travel mm: 4.00 Tolerance cm3/1000 strokes: + 2.0 rack travel mm: 12.20 cm3/1000S: : + 4.5 Rated speed rpm: 1245 Spreed Tolerance Tolerance 1/min: + 8 Tolerance cm3/1000 strokes: 3.5 ASSEMBLY GOVERNOR SETTING Check tolerance cm3/1000S. : 5.5 Rated speed rpm: 12.40 Rated speed rpm: 12.20 Rated speed rpm: 12.20 (B) SETTING OF INJECTION PUMP WITH GOVERNOR Rated speed rpm: 12.20 WITH GOVERNOR Rated speed rpm: 12.41 GUIDE SLEEVE POSITION Rated speed rpm: 12.20 Rated speed rpm: 10.21 Rated speed rpm: 12.20 Rated speed rpm: 10.25 Rated speed rpm: 12.20 Rated speed rpm: 10.25 Rated speed rpm: 12.20 Rated speed rpm: 10.00 Rated speed rpm: 12.20 Rated speed rpm: 12.20 Rated speed rpm: 12.20 Rated speed rpm: 12.20 Rated speed rpm: 12.20 Rated speed rpm: 12.20		· • • • • • • • • • • • • • • • • • • •	1	Ratea Speed 1 pm	. 1450
cm3/1000 strokes : + 2.0 rack travel mm : 12.20 cm3/1000s. : + 4.5 Rated speed rpm : 1245 Spreed Tolerance cm3/1000 strokes : 3.5 ASSEMBLY GOVERNOR SETTING Check tolerance cm3/1000s. : 5.5 Rated speed rpm : 1240 CB) SETTING OF INJECTION PUMP WITH GOVERNOR Rated speed rpm : 12.20 Rated speed rpm : 12.20 Rated speed rpm : 800 Rated speed rpm : 12.20 Rated speed rpm : 12.20 Rated speed rpm : 0.65 Rated speed rpm : 12.20 12.20 Rack travel in mm : 0.65 Rated speed rpm : 12.20 12.20 Rovernor spring pre-tension click setting x : 5.80 Rated speed rpm : 1220 12.20 Rated speed rpm : 1200 Aneroid pressure hpa : 700 Rated speed rpm : 1243 Rated speed rpm : 1200 Aneroid pressure mpa : 700 bel, quantity cm3/1000 strokes : 88.0 Rated speed rpm : 1292 Tolerance cm3/1000 strokes : 88.0 Rated speed rpm : 1292 Tolerance cm3/1000s. : 4 - 3.0 Rated speed rpm : 1292 Tolerance cm3/1000s. : 4 - 3.0 Rated speed rpm : 1293 Tolerance cm3/1000s. : 6.0 Rated speed rpm : 1293 Tolerance 1/min : 4 - 4 rack travel mm : 4.00 Rated speed rpm : 1293 Tolerance 1/min : 4 <		• 12.0	1	rack travel mm	• 4 00
cm3/1000 strokes : + 2.0 rack travel mm : 12.20 cm3/1000s. : + 4.5 Rated speed rpm : 1245 Spreed Tolerance cm3/1000 strokes : 3.5 ASSEMBLY GOVERNOR SETTING Check tolerance cm3/1000s. : 5.5 Rated speed rpm : 1240 CB) SETTING OF INJECTION PUMP WITH GOVERNOR Rated speed rpm : 12.20 Rated speed rpm : 12.20 Rated speed rpm : 800 Rated speed rpm : 12.20 Rated speed rpm : 12.20 Rated speed rpm : 0.65 Rated speed rpm : 12.20 12.20 Rack travel in mm : 0.65 Rated speed rpm : 12.20 12.20 Rovernor spring pre-tension click setting x : 5.80 Rated speed rpm : 1220 12.20 Rated speed rpm : 1200 Aneroid pressure hpa : 700 Rated speed rpm : 1243 Rated speed rpm : 1200 Aneroid pressure mpa : 700 bel, quantity cm3/1000 strokes : 88.0 Rated speed rpm : 1292 Tolerance cm3/1000 strokes : 88.0 Rated speed rpm : 1292 Tolerance cm3/1000s. : 4 - 3.0 Rated speed rpm : 1292 Tolerance cm3/1000s. : 4 - 3.0 Rated speed rpm : 1293 Tolerance cm3/1000s. : 6.0 Rated speed rpm : 1293 Tolerance 1/min : 4 - 4 rack travel mm : 4.00 Rated speed rpm : 1293 Tolerance 1/min : 4 <			1	Rated speed rom	1335
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cm3/1000S. : + 4.5 Rated speed rpm : 1245 Spreed Tolerance 17 tolerance 1/min : + 8 Cm3/1000 strokes : 3.5 ASSEMBLY GOVERNOR SETTING Check tolerance Rated speed rpm : 1240 cm3/1000S. : 5.5 Rated speed rpm : 1229 WITH GOVERNOR Tolerance 1/min : + 4 GUIDE SLEEVE POSITION Rated speed rpm : 1224 Rated speed rpm : 0.65 Rated speed rpm : 1229 Rated speed rpm : 0.35 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1220 Rated speed rpm : 1223 Rated speed rpm : 1224 Rated speed rpm : 1224 <td></td> <td> 2.0</td> <td>1</td> <td>rack travel mm</td> <td>12.20</td>		2.0	1	rack travel mm	12.20
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Rated speed rpm : 1241 rack travel mm : 12.20	WITH GOVERNOR		+	Tolerance 1/min	: + 4
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Rated speed rpm : 800			+		
Rated speed rpm : 800			+	Rated speed rpm	: 1241
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CONTROL LEVER			1	. Sold of Gree time	-7100
rack travel mm : 12.20 Rated speed rpm : 1294 Tolerance 1/min : + 4 rack travel mm : 4.00		: 6.0	1	Rated speed rpm	: 1245
CONTROL LEVER Rated speed rpm : 1294 Tolerance 1/min : + 4 rack travel mm : 4.00	······································	-	+		: 12.20
CONTROL LEVER + Tolerance 1/min : + 4 rack travel mm : 4.00 control lever			+		
control lever + rack travel mm : 4.00			+		
control lever +	CONTROL LEVER		+		
control lever + position degree : 102.0 +			+	rack travel mm	: 4.00
position degree : 1U2.U +	control lever	. 402.2	†		
	position degree	: 102.0	+		

LOW IDLE	
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 7.00 : + 0.40
Rated speed rpm	: 100
CRT mm min.	: > 19.00
TORQUE CONTROL	V
Rated speed rpm rack travel mm Tolerance mm	: 1200 : 13.20 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 14.00 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 13.60 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 14.00 : +- 0.10
MEASUREMENT	
Pressure hPa Rated speed rpm Tolerance mm	: - : 500 : + 0.10
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 375 : 1.45 : +- 0.15
Pressure hPa rack travel mm Tolerance mm	: 200 : 0.50 : + 0.05

FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa	: 700
Rated speed rpm Del. quantity	: 600
cm3/1000 strokes Tolerance	: 87.0
cm3/1000 strokes Check tolerance	: +- 1.5
cm3/1000s. Spreed Tolerance	: +- 4.0
cm3/1000 strokes Check tolerance	: 5.0
cm3/1000s.	: 7.0
Aneroid pressure	
hPa Rated speed rpm	500
Del. quantity cm3/1000 strokes	: 50.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: ← 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm	IVERY : 100
Rated speed rpm Del. quantity cm3/1000 strokes	
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 100
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 100 : 80.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 80.0 : + 5.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 80.0 : + 5.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm	: 100 : 80.0 : + 5.0 : + 8.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm	: 100 : 80.0 : + 5.0 : + 8.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 100 : 80.0 : + 5.0 : + 8.0 : 350 : 7.00
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Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: 100 : 80.0 : + 5.0 : + 8.0 : 350 : 7.00 : + 0.40 : 12.0
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 80.0 : + 5.0 : + 8.0 : 4.00 : 7.00 : + 0.40 : 12.0 : + 2.0

cm3/1000s.	:	5.5	
End of test spec	ifica	tion sheet	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 12.01.96

Test oil

: ISO 4113

Combination No. : 0 401 876 808

Injection pump

Pump designation : PE6P12OA32ORS3355

EP type number : 0 411 826 814

Governor

Governer design. : RSV300...1100P1A604

Governer no. : 0 421 833 485

Cust. part No. : 3825516 PO3 v. 11/95

Customer-spec. information

Customer : PENTA

Motor

: TD1030ME

Power KW

: 190.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 85
Tolerance l/h : +- 10.0

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter:

2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0

Tolerance bar : +- 1.0

Prestroke mm : 3.45
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 9.90

Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: + 0.30Tolerance

Check

tolerance °NW : +- 0.50

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance °NW

: +- 0.75

Barrel no.

: 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 12.50

Tolerance mm : + 0.05

+	Check tolerance
Del. quantity cm3/1000 strokes : 156.0	cm3/1000s. : +- 4.0 Spreed Tolerance
Tolerance cm3/1000 strokes : + 1.0	cm3/1000 strokes : 7.0 Check tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000s. : 11.0
Spreed	CONTROL LEVER
Tolerance cm3/1000 strokes : 7.0	control lever position degree : 62.0
Check tolerance cm3/1000s. : 11.0	tolerance degree : +- 4.0
Rated speed rpm : 300	control lever position degree : 112.0 tolerance degree : +- 4.0
Rack travel in mm: 4.70	•
Tolerance mm : + 0.20 + Del. quantity +	RATED SPEED
cm3/1000 strokes : 23.0	rack travel mm : 11.50
Tolerance + 2.5	Rated speed rpm : 1135 Tolerance 1/min : +- 5
Check tolerance	s s
cm3/1000s. : +- 5.0	rack travel mm : 4.00
Spreed + Tolerance +	Rated speed rpm : 1190 Tolerance 1/min : +- 15
cm3/1000 strokes : 3.0	Toterance Triving . For 15
Check tolerance	rack travel mm : 0.85
cm3/1000s. : 6.0	Tolerance mm : + 0.55
1	Rated speed rpm : 1300
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 4.00 Rated speed rpm : 1195
GUIDE SLEEVE POSITION	LOW IDLE
Rated speed rpm : 800	
Rack travel in mm: 0.85	control lever position degree : 76.0
Tolerance mm : + 0.55	tolerance degree : +- 4.0
governor spring	control lever
pre-tension +	position degree : 26.0
click setting x : 4.75	tolerance degree : +- 4.0
FULL LOAD DELIVERY AT FULL LOAD STOP	Setting point w/out bumper spring
+	Rated speed rpm : 300
Rated speed rpm : 1100 +	rack travel mm : 4.20
hPa : 1500	Testing:
Del. quantity	_
cm3/1000 strokes : 156.0 +	Rated speed rpm : 300 rack travel mm : 4.70
cm3/1000 strokes : +- 1.0	rack travel mm : 4.70 Tolerance mm : + 0.10
· · · · · · · · · · · · · · · · · · ·	

rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 380 : +- 30
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1100 : 12.50 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 700 : 12.50 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 12.50 : + 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 9.55 : + 0.10
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 555 : 2.30 : + 0.15
Pressure hPa rack travel mm Tolerance mm	: 140 : 0.25 : + 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1500 : 700
cm3/1000 strokes	: 178.0
Tolerance cm3/1000 strokes	: +- 3.0
Check tolerance cm3/1000s. Spreed	: +- 6.0

Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	:	7.0 11.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: : : +-	500 127.0 1.0 4.0

BREAKAWAY

Rack travel in mm	:	11.50
Rated speed rpm	:	1135
Tolerance 1/min	:	+- 5

LOW IDLE

Rated speed rpm	:	300
rack travel mm	:	4.70
Tolerance mm	: +-	0.20
Del. quantity		
cm3/1000 strokes	:	23.0
Tolerance		
cm3/1000 strokes	: +-	- 2.5
Check tolerance		
cm3/1000s.	: +-	- 5.0
Spreed		
Tolerance		
cm3/1000 strokes	:	3.0
Check tolerance		
cm3/1000s.	:	6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 10.01.96 : ISO 4113

Combination No. : 0 401 876 813

Injection pump

Pump designation: PE6P110A320RS3364 EP type number : 0 411 816 798

Governor

Governer design. : RSV300...900P1A624

Governer no. : 0 421 833 535

Cust. part No.

: 11030179

: -P02 v.12/95

Customer-spec. information : VME Customer

Motor

: TD 63 KEE

Power KW : 105.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Vibration

damper

(RoBo diaphragm) : 4.2

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 2 417 413 046

Inlet press. bar :

Tolerance bar

0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

208.5

Tolerance bar

: +- 1.5

F28

Test Lines : 1 680 750 008

Outside diameter :

6.0

x inside diameter :

2.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0

Tolerance bar : + 1.0

Prestroke mm 2.45

Tolerance mm : + 0.05

Check

tolerance mm : + - 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + - 0.30

Check

tolerance °NW : + - 0.75

Start of delivery mark

Barrel no.

1

BASIC SETTING

Rated speed rpm

550

Rack travel in mm:

11.60

Tolerance mm

: ← 0.05

Del. quantity

cm3/1000 strokes :

145.0

Tolerance	+ Tolerance + cm3/1000 strokes : 4.0
cm3/1000 strokes : +- 1.0	+ Check tolerance + cm3/1000s. : 7.5
Check tolerance cm3/1000s. : + 3.0	
Spreed	CONTROL LEVER
Tolerance cm3/1000 strokes : 4.0	control lever position degree : 51.0
Check tolerance cm3/1000s. : 7.5	tolerance degree : +- 4.0
Rated speed rpm : 300	control lever position degree : 101.0 tolerance degree : + 4.0
Rack travel in mm : 4.80 Tolerance mm : +- 0.20 Del. quantity	RATED SPEED
cm3/1000 strokes : 26.0 Tolerance	rack travel mm : 10.20 Rated speed rpm : 930
cm3/1000 strokes : +- 2.0 Check tolerance	+ Tolerance 1/min : + 5
cm3/1000s. : +- 4.5 Spreed Tolerance	+ rack travel mm : 4.00 + Rated speed rpm : 990 + Tolerance 1/min : +- 15
cm3/1000 strokes : 3.0 Check tolerance	rack travel mm : 0.85
cm3/1000s. : 6.0	Tolerance mm : + 0.55 Rated speed rpm : 1150
(B) SETTING OF INJECTION PUMP	‡
WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	+ control lever
Rated speed rpm : 800	
Rack travel in mm: 0.50 Tolerance mm: + 0.20	position degree : 76.0
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring pre-tension	position degree : 76.0 tolerance degree : + 4.0 control lever position degree : 26.0
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring	position degree : 76.0 tolerance degree : + 4.0 control lever position degree : 26.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring pre-tension	position degree : 76.0 tolerance degree : + 4.0 control lever position degree : 26.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 4.30
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring pre-tension click setting x: 5.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 550 Aneroid pressure	position degree : 76.0 tolerance degree : + 4.0 control lever position degree : 26.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 4.30 Testing: Rated speed rpm : 300
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring pre-tension click setting x: 5.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 550 Aneroid pressure hPa: 1500 Del. quantity	position degree : 76.0 tolerance degree : + 4.0 control lever position degree : 26.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 4.30 Testing:
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring pre-tension click setting x: 5.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 550 Aneroid pressure hPa: 1500	position degree : 76.0 tolerance degree : + 4.0 control lever position degree : 26.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 4.30 Testing: Rated speed rpm : 300 rack travel mm : 4.80
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring pre-tension click setting x: 5.25 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 550 Aneroid pressure hPa: 1500 Del. quantity cm3/1000 strokes: 145.0	position degree : 76.0 tolerance degree : + 4.0 control lever position degree : 26.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 4.30 Testing: Rated speed rpm : 300 rack travel mm : 4.80 Tolerance mm : + 0.10

		+	Tolerance
TORQUE CONTROL		+	cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm rack travel mm		‡	cm3/1000s. : 10.0
Tolerance mm	: + 0.05	Ī	Aneroid pressure hPa : - Rated speed rpm : 550
Rated speed rpm rack travel mm		<u> </u>	Del. quantity cm3/1000 strokes : 87.0
Tolerance mm		‡	Tolerance cm3/1000 strokes : +- 1.0
Rated speed rpm rack travel mm Tolerance mm	: 765 : 11.50 : + 0.10	‡	Check tolerance cm3/1000s. : +- 4.0
ANEROID/ALTITUDE COMPENSATOR TEST		<u> </u>	BREAKAWAY
SETTING		‡	Rack travel in mm : 10.20 Rated speed rpm : 930 Tolerance 1/min : +- 5
Rated speed rpm Pressure hPa rack travel mm	: 1500	‡	STARTING FUEL DELIVERY
Tolerance mm	: + 0.05	1	Rated speed rpm : 100
MEASUREMENT		‡	Del. quantity cm3/1000 strokes : 103.0
Pressure hPa Rated speed rpm rack travel mm	: - : 550 : 9.00	+++++++++++++++++++++++++++++++++++++++	Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
Tolerance mm	: + 0.10	+	cm3/1000s. : +- 14.0
Rated speed rpm		‡	
Pressure hPa rack travel mm Tolerance mm	: 620 : 2.30 : + 0.20	† †	LOW IDLE
Pressure hPa rack travel mm Tolerance mm	: 90 : 0.25 : +- 0.05	† †	Rated speed rpm : 300 rack travel mm : 4.80 Tolerance mm : + 0.20 Del. quantity
		‡	cm3/1000 strokes : 26.0 Tolerance
		‡	cm3/1000 strokes : +- 2.0 Check tolerance
FUEL DELIVERY CHA	ARACTERISTICS	‡	cm3/1000s. : +- 4.5 Spreed
Aneroid pressure hPa Rated speed rpm	: 1500 : 900	†	Tolerance cm3/1000 strokes : 3.0 Check tolerance
Del. quantity cm3/1000 strokes		+	cm3/1000s. : 6.0
Tolerance cm3/1000 strokes Check tolerance	: + 1.0	†	
cm3/1000s. Spreed	: +- 3.0	‡	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 17,01,96 : ISO 4113

Combination No. : 0 402 046 300

Injection pump

Pump designation : PES6P120A320RS419 EP type number : 0 412 026 037

Governor

Governer design. : RQV275...1100PA495

: -5

Governer no.

: 0 421 813 446

Cust. part No. : CCEP 5023 E 06-09

Customer-spec. information

Customer

: RVI

: MIDR 062045 Motor

Power KW

: 191.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

2.0 Tolerance °C

Overflow valve : 1 417 413 025

1.5 Inlet press. bar :

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

208.5 bar : +- 1.5 Tolerance bar

: 1 680 750 075 Test lines

Outside diameter : 8.0 x inside diameter: 3.0

x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 2.85 Tolerance mm : + - 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

°NW after s.o.d. : 10.50 : +- 0.50 Tolerance

Check

tolerance °NW : +- 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 9.05

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 163.0

	+ Rated speed rpm : 1150
Tolerance cm3/1000 strokes : + 1.0	Rack travel in mm : 16.50 Tolerance mm : + 1.30
Check tolerance cm3/1000s. : +- 4.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Spreed Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 1100 Aneroid pressure
Check tolerance	hPa : 700 Del. quantity
cm3/1000s. : 9.0 Rated speed rpm : 275	+ cm3/1000 strokes : 163.0 + Tolerance + cm3/1000 strokes : +- 1.0
Rack travel in mm: -4.10	Check tolerance cm3/1000s. : +- 4.0
Tolerance mm : + 0.20 Del. quantity	+ Spreed + Tolerance
cm3/1000 strokes : 24.0 Tolerance	cm3/1000 strokes : 5.0 Check tolerance
cm3/1000 strokes : + 3.0 Check tolerance	+ cm3/1000s. : 9.0
cm3/1000s. : +- 6.0 Spreed Tolerance	CONTROL LEVER
cm3/1000 strokes : 8.0 Check tolerance	control Lever
cm3/1000s. : 12.0	position degree : 64.0 tolerance degree : + 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 124.0 tolerance degree : + 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 250 guide sleeve	rack travel mm : -1.00 Rated speed rpm : 1175
travel mm : 1.10 Tolerance mm : +- 0.10	+ Tolerance 1/min : +- 5 + rack travel mm : -5.00
Rated speed rpm : 1100 guide sleeve	Rated speed rpm : 1240 Tolerance 1/min : + 15
travel mm : 8.10 Tolerance mm : +- 0.10	rack travel mm : -8.55 Tolerance mm : +- 0.50
Rated speed rpm : 450 guide sleeve	Rated speed rpm : 1350
travel mm : 3.60 Tolerance mm : + 0.20	LOW IDLE
Rated speed rpm : 850 guide sleeve	+
travel mm : 6.20 Tolerance mm : + 0.10	+ control lever + position degree : 68.0 + tolerance degree : + 4.0
GUIDE SLEEVE POSITION	control lever position degree : 9.0

tolerance degree	: ← 4.0	+
Testing:		FUEL DELIVERY CHARACTERISTICS
Rated speed rpm rack travel mm Tolerance mm	: -4.10	Aneroid pressure hPa : 700 Rated speed rpm : 700
Rated speed rpm	: 200	+ Del. quantity + cm3/1000 strokes : 153.0
CRT mm max.	: < -2.40	Tolerance cm3/1000 strokes : +- 3.0 Check tolerance
Rated speed rpm	: 343	cm3/1000s. : +- 6.0
TORQUE CONTROL		Aneroid pressure hPa : - Rated speed rpm : 500
Rated speed rpm		the Del. quantity cm3/1000 strokes : 103.0
Rated speed rpm	: 700	+ Tolerance + cm3/1000 strokes : +- 1.0
ANEROID/ALTITUDE COMPENSATOR TEST		
SETTING		BREAKAWAY
Rated speed rpm Pressure hPa	: 500 : 700	Rack travel in mm : -1.00 Rated speed rpm : 1175 Tolerance 1/min : +- 5
MEASUREMENT		
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : -1.10 : + 0.20	STARTING FUEL DELIVERY Rated speed rpm : 100
Rated speed rpm	: 500	Del. quantity cm3/1000 strokes : 150.0
Pressure hPa rack travel mm Tolerance mm	: 195 : -0.80 : +- 0.10	Tolerance - cm3/1000 strokes : +- 10.0 - Check tolerance - cm3/1000s. : +- 14.0
Pressure hPa rack travel mm Tolerance mm	: 220 : -0.35 : +- 0.05	‡ ‡
		LOW IDLE
START CUT-OUT		+ Rated speed rpm : 275 + rack travel mm : -4.10
Rated speed rpm Rated speed rpm	: > 100 : < 195	Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 24.0
Check speed 1/min	; > 80	Tolerance cm3/1000 strokes : + 3.0
Check speed 1/min	: < 215	+ Check tolerance + cm3/1000s. : +- 6.0 + Spreed

Tolerance

8.0

cm3/1000 strokes : Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.01.96 Test oil : ISO 4113

Combination No. : 0 402 046 824

Injection pump

Pump designation : PES6P12DA32DRS3279

: -1

EP type number : 0 412 026 758

Governor

Governer design. : RQ275/1050PA999-5 Governer no. : 0 421 801 663

Cust. part No. : CCEP-5112B 66-175

Customer-spec. information

Customer : RVI

Motor : MIHR 062045 A/3

Power KW : 186.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance $^{\circ}NW$: +- 0.50

Start of delivery mark

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 10.50 Tolerance mm : + 0.50

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 11.25
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 158.0	guide sleeve travel mm : 6.00 Tolerance mm : +- 0.10
Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 1380 guide sleeve
Check tolerance cm3/1000s. : + 4.0	travel mm : 11.50 Tolerance mm : + 0.50
Spreed Tolerance cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION Rated speed rpm : 750
Check tolerance cm3/1000s. : 9.0	Rack travel in mm : 20.00 Tolerance mm : + 0.80
Rated speed rpm : 275	
Rack travel in mm : -4.50 Tolerance mm : + 0.20	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 21.0 Tolerance	Rated speed rpm : 700 Aneroid pressure hPa : 1000
cm3/1000 strokes : +- 2.0 +- Check tolerance	Del. quantity cm3/1000 strokes : 158.0
cm3/1000s. : +- 5.0 +	Tolerance cm3/1000 strokes : +- 1.0
Tolerance + cm3/1000 strokes : 8.0 + check tolerance + cm3/1000 strokes : 8.0 + cm3/1000 strokes	Check tolerance cm3/1000S. : +- 4.0 Spreed
cm3/1000s. : 12.0	Tolerance cm3/1000 strokes : 5.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	CONTROL LEVER
Rated speed rpm : 300 guide sleeve travel mm : 2.35 Tolerance mm : + 0.10	control lever position degree : 274.0 tolerance degree : +- 4.0 RATED SPEED
Rated speed rpm : 1126 guide sleeve travel mm : 6.38 Tolerance mm : + 0.10	rack travel mm : -1.00 Rated speed rpm : 1138 Tolerance 1/min : +- 8
Rated speed rpm : 1050 + guide sleeve	rack travel mm : -7.20 Rated speed rpm : 1245
travel mm : 6.00 + O.10	Tolerance 1/min : + 15 rack travel mm : -10.75
Rated speed rpm : 582 guide sleeve	rack travel mm : -10.75 Tolerance mm : +- 0.55 Rated speed rpm : 1350
travel mm : 5.14 Tolerance mm : + 0.10	•
Rated speed rpm : 710	LOW IDLE

control lever position degree : 253.0 tolerance degree : + 4.0	Check speed 1/min :> 80 Check speed 1/min : < 215
Testing: Rated speed rpm : 275 rack travel mm : -4.50	FUEL DELIVERY CHARACTERISTICS Aneroid pressure
Tolerance mm : + 0.10 rack travel mm : -9.25 Rated speed rpm : 580 Tolerance 1/min : + 20	hPa : 1000 Rated speed rpm : 1050 Del. quantity cm3/1000 strokes : 154.0 Tolerance
Rated speed rpm : 200	+ cm3/1000 strokes : + 3.0 + Check tolerance + cm3/1000s. : +- 6.0
CRT mm max. : < -3.00	Aneroid pressure
TORQUE CONTROL	Rated speed rpm : 500 Del. quantity
Rated speed rpm : 700	+ cm3/1000 strokes : 114.0 + Tolerance
Rated speed rpm : 1050 Tolerance mm : + 0.10	+ cm3/1000 strokes : + 1.0 + Check tolerance - cm3/1000s. : + 4.0
ANEROID/ALTITUDE COMPENSATOR TEST	BREAKAWAY
SETTING	+ Rack travel in mm : -1.00 + Rated speed rpm : 1138
Rated speed rpm : 500 Pressure hPa : 1000	Tolerance 1/min : +- 8
MEASUREMENT Pressure hPa : -	STARTING FUEL DELIVERY
Rated speed rpm : 500 rack travel mm : -1.20 Tolerance mm : + 0.20	Del. quantity cm3/1000 strokes : 155.0 Tolerance cm3/1000 strokes : + 10.0
Rated speed rpm : 500	Check tolerance + cm3/1000s. : +- 14.0
Pressure hPa : 220 rack travel mm : -0.45 Tolerance mm : +- 0.15	‡
Pressure hPa : 160 rack travel mm : -0.85 Tolerance mm : + 0.05	LOW IDLE Rated speed rpm : 275 rack travel mm : -4.50 Tolerance mm : + 0.20
START CUT-OUT Rated speed rpm :> 100	Del. quantity cm3/1000 strokes : 21.0 Tolerance
Rated speed rpm :> 100 Rated speed rpm :< 195	+ cm3/1000 strokes : + 2.0

Check tolerance cm3/1000s. : +- 5.0

Spreed Tolerance cm3/1000 strokes : 8.0

Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 09.01.96 Test oil : ISO 4113

Combination No. : 0 402 076 771

Injection pump

Pump designation : PES6P120A720RS3340 EP type number : 0 412 026 773

Governor

Governer design. : RSV650...1100P8A566

: -1

Governer no. : 0 421 833 452

Cust. part No. :

Customer-spec. information

Customer : FNH-GEOTECH

Power KW : 201.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance °NW : + 0.50

Start of delivery blocking

Check

tolerance $^{\circ}NW$: + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm : 12.35 Tolerance mm : + 0.05

Del. quantity tm3/1000 strokes : 183.0	Check tolerance cm3/1000s. : +- 6.0 Spreed
Tolerance cm3/1000 strokes : + 1.0	Tolerance cm3/1000 strokes : 5.0 Check tolerance
Check tolerance cm3/1000S. : +- 6.0	cm3/1000s. : 9.0
Spreed Tolerance cm3/1000 strokes : 5.0	CONTROL LEVER
Check tolerance cm3/1000s. : 9.0	<pre>control lever position degree : 97.0 tolerance degree : +- 4.0</pre>
Rated speed rpm : 650	RATED SPEED
Rack travel in mm: 4.60 Tolerance mm: + 0.20 Del. quantity	rack travel mm : 4.00 Rated speed rpm : 1165
cm3/1000 strokes : 23.0 +	ASSEMBLY GOVERNOR SETTING
cm3/1000 strokes : + 3.0 + Check tolerance cm3/1000s. : + 6.0 +	Rated speed rpm : 1121 rack travel mm : 11.30
Spreed Tolerance +	Rated speed rpm : 1152 Tolerance 1/min : + 5
cm3/1000 strokes : 8.0 + Check tolerance + 13.0	rack travel mm : 4.00
cm3/1000s. : 12.0	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1350
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1122 rack travel mm : 11.30
GUIDE SLEEVE POSITION	Rated speed rpm : 1153 Tolerance 1/min : +- 5
Rated speed rpm : 800	rack travel mm : 4.00
Rack travel in mm: 0.50 Tolerance mm: + 0.20	rack travel mm : 0.85 Tolerance mm : +- 0.55
governor spring + + + + + + + + + + + + + + + + + + +	Rated speed rpm : 1123 rack travel mm : 11.30
click setting x : 2.50	Rated speed rpm : 1154 Tolerance 1/min : +- 5 rack travel mm : 4.00
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 0.85
Rated speed rpm : 1075 Aneroid pressure	Tolerance mm : + 0.55
hPa : 1600 + Del. quantity +	Rated speed rpm : 1124 rack travel mm : 11.30
cm3/1000 strokes : 183.0 + Cm3/1000 strokes : + 1.0 + Cm3/1000 strokes : + 1.0	Rated speed rpm : 1155 Tolerance 1/min : + 5 rack travel mm : 4.00

+	
rack travel mm : 0.85 Tolerance mm : + 0.55	ANEROID/ALTITUDE COMPENSATOR TEST
Rated speed rpm : 1125 + rack travel mm : 11.30 +	
Rated speed rpm : 1156 Tolerance 1/min : + 5 rack travel mm : 4.00	SETTING Rated speed rpm : 500 Pressure hPa : 1600
rack travel mm : 0.85 Tolerance mm : + 0.55	rack travel mm : 13.20 Tolerance mm : +- 0.15 MEASUREMENT
Rated speed rpm : 1126 rack travel mm : 11.30	Pressure hPa : -
Rated speed rpm : 1157 Tolerance 1/min : + 5 rack travel mm : 4.00	Rated speed rpm : 500 rack travel mm : 7.60 Tolerance mm : +- 0.15
rack travel mm : 0.85 Tolerance mm : + 0.55	Rated speed rpm : 500 Pressure hPa : 1060 rack travel mm : 11.80
LOW IDLE	Tolerance mm : +- 0.10
control lever	START CUT-OUT
position degree : 78.0 tolerance degree : + 4.0	Rated speed rpm : > 100
Setting point w/out bumper spring	Check speed 1/min :> 80
Rated speed rpm : 650 rack travel mm : 4.10	FUEL DELIVERY CHARACTERISTICS
Testing:	Aneroid pressure hPa : 1600
Rated speed rpm : 650 + rack travel mm : 4.60 + Tolerance mm : + 0.10 +	Rated speed rpm : 800 Del. quantity cm3/1000 strokes : 210.0
rack travel mm : 2.00 + Rated speed rpm : 750	Tolerance cm3/1000 strokes : +- 3.0 Check tolerance
TOROUT CONTROL	cm3/1000s. : +- 6.0
TORQUE CONTROL Rated speed rpm : 1075	Aneroid pressure hPa : - Rated speed rpm : 500
rack travel mm : 12.35 Tolerance mm : + 0.05	Del. quantity cm3/1000 strokes : 83.0
Rated speed rpm : 800 rack travel mm : 13.15 Tolerance mm : + 0.10	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000S. : +- 4.0
Rated speed rpm : 700 + rack travel mm : 13.20 + Tolerance mm : + 0.15	

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.50
Tolerance mm : + 0.50
Del. quantity
cm3/1000 strokes : 150.0
Tolerance
cm3/1000 strokes : + 15.0
Check tolerance
cm3/1000s. : + 19.0

LOW IDLE

650 Rated speed rpm 4.60 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 23.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 23.06.95 Test oil : ISO 4113

Combination No. : 0 402 646 626

Injection pump

Pump designation : PE6P12OA32ORS7299 EP type number : 0 412 626 885

Governor

Governer design. : RQV275...1000PA1076K

Governer no. : 0 421 815 357

Cust. part No. : 1280160

Customer—spec. information Customer : DAF

Motor : WS 268 M Power KW : 268.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 160 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.85
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance "NW : +- 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 980

Rack travel in mm : 13.55
Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 250.0

Tolerance + 1.0	- - Rated speed rpm : 390
CIBS TOOD SCHORES : += 1.0	- Mateu speed rpm : 390 - guide sleeve
Check tolerance	- travel mm : 3.79
cm3/1000s. : +- 4.0	Tolerance mm : +- 0.25
Spreed	- Rated speed rpm : 1310
Tolerance +	- guide sleeve
cm3/1000 strokes : 5.0	- travel mm : 13.50 - Tolerance mm : +- 0.50
Check tolerance	- Toterance min : 7- 0.50
cm3/1000s. : 9.0	
Rated speed rpm : 275	- GUIDE SLEEVE POSITION
Rated speed rpm : 275	- - Rated speed rpm : 1130
Rack travel in mm: 5.60	•
Tolerance mm : + 0.10	Rack travel in mm: 12.60
Del. quantity + cm3/1000 strokes : 17.0 +	Tolerance mm : +- 1.30
Tolerance	
cm3/1000 strokes : +- 3.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance + 6.0 +	Rated speed rpm : 980
Spreed	Aneroid pressure
Tolerance +	hPa :
cm3/1000 strokes : 8.0 + Check tolerance	· Del. quantity · cm3/1000 strokes : 250.0
cm3/1000s. : 12.0	Tolerance
+	cm3/1000 strokes : + 1.0
+	Check tolerance
(R) SETTING OF INJECTION PUMP	. cm3/1000s · +− 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	cm3/1000s. : +- 4.0 Spreed
	Spreed Tolerance
WITH GOVERNOR	Spreed Tolerance cm3/1000 strokes : 5.0
	Spreed Tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20 Rated speed rpm : 689	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20 Rated speed rpm : 689 guide sleeve travel mm : 6.43	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.55 Rated speed rpm : 1042
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20 Rated speed rpm : 689 guide sleeve	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.55
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20 Rated speed rpm : 689 guide sleeve travel mm : 6.43 Tolerance mm : + 0.25	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.55 Rated speed rpm : 1042 Tolerance 1/min : + 5
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20 Rated speed rpm : 689 guide sleeve travel mm : 6.43 Tolerance mm : + 0.25 Rated speed rpm : 284 guide sleeve	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.55 Rated speed rpm : 1042 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20 Rated speed rpm : 689 guide sleeve travel mm : 6.43 Tolerance mm : + 0.25 Rated speed rpm : 284 guide sleeve travel mm : 2.27	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.55 Rated speed rpm : 1042 Tolerance 1/min : + 5 rack travel mm : 4.00
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20 Rated speed rpm : 689 guide sleeve travel mm : 6.43 Tolerance mm : + 0.25 Rated speed rpm : 284 guide sleeve	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.55 Rated speed rpm : 1042 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : + 15
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20 Rated speed rpm : 689 guide sleeve travel mm : 6.43 Tolerance mm : + 0.25 Rated speed rpm : 284 guide sleeve travel mm : 2.27	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.55 Rated speed rpm : 1042 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : + 15 rack travel mm : 0.70 Tolerance mm : 0.70
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20 Rated speed rpm : 689 guide sleeve travel mm : 6.43 Tolerance mm : + 0.25 Rated speed rpm : 284 guide sleeve travel mm : 2.27 Tolerance mm : + 0.25 Rated speed rpm : 284 guide sleeve travel mm : 2.27 Tolerance mm : + 0.25	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.55 Rated speed rpm : 1042 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : + 15 rack travel mm : 0.70
WITH GOVERNOR GUIDE SLEEVE TRAVEL Rated speed rpm : 275 guide sleeve travel mm : 2.14 Tolerance mm : + 0.15 Rated speed rpm : 1045 guide sleeve travel mm : 9.82 Tolerance mm : + 0.20 Rated speed rpm : 689 guide sleeve travel mm : 6.43 Tolerance mm : + 0.25 Rated speed rpm : 284 guide sleeve travel mm : 2.27 Tolerance mm : + 0.25 Rated speed rpm : 284 guide sleeve travel mm : 2.27 Tolerance mm : + 0.25	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.55 Rated speed rpm : 1042 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : + 15 rack travel mm : 0.70 Tolerance mm : + 0.70

LOW IDLE control lever 76.0 position degree tolerance degree : +-4.0 Testing: 275 Rated speed rpm 4.80 rack travel mm : + 0.10Tolerance mm 2.00 rack travel mm 390 Rated speed rpm Tolerance 1/min 20 175 Rated speed rpm : > 7.50 CRT mm min. TORQUE CONTROL Rated speed rpm 980 13.55 rack travel mm : +- 0.05 Tolerance mm 750 Rated speed rpm 13.05 rack travel mm : + 0.10Tolerance mm Rated speed rpm 825 13.30 rack travel mm : + - 0.20Tolerance mm 600 Rated speed rpm 12.10 rack travel mm : + - 0.20Tolerance mm Rated speed rpm 500 11.70 rack travel mm : + 0.15Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING 980 Rated speed rpm Pressure hPa 1500 13.55 rack travel mm : +- 0.05

Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 980 : 8.60 : + 0.10
Rated speed rpm	: 980
Pressure hPa rack travel mm Tolerance mm	: 720 : 12.25 : ← 0.05
Pressure hPa rack travel mm Tolerance mm	: 360 : 9.80 : + 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm	: – : 750
Del. quantity cm3/1000 strokes	: 263.0
Tolerance	
cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s. Spreed	: +- 5.0
Tolerance cm3/1000 strokes	: 8.0
Check tolerance cm3/1000s.	: 12.0
	. 12.0
Aneroid pressure hPa	: -
Rated speed rpm Del. quantity	: 600
cm3/1000 strokes Tolerance	: 154.0
cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s.	: +- 4.0
BREAKAWAY	
Rack travel in mm Rated speed rpm	: 12.55 : 1042
Tolerance 1/min	: +- 5

LOW IDLE

Tolerance mm

MEASUREMENT

Rated speed rpm	: 275
rack travel mm	: 5.60
Tolerance mm	: +- 0.10
Del. quantity	
cm3/1000 strokes	: 17.0
Tolerance	
cm3/1000 strokes	: +- 3.0
Check tolerance	
cm3/1000s.	: +- 6.0
Spreed	
Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance	
cm3/1000s.	: 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 12.01.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 646 665

Injection pump

Pump designation: PE6P130A720RS7354 EP type number : 0 412 636 835

Governor

Governer design. : RQV300...950PA1002

: -3K

Governer no. : 0 421 815 491

Cust. part No. :

Customer-spec. information

: IVECO-FRANCE Customer

: 8210.42K.3000 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : Tolerance bar : +-0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar : +- 1.5 Tolerance bar

Test Lines : 1 680 750 075

8.0

Outside diameter :

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 5.05 : +- 0.05 Tolerance mm Check

: +- 0.10 tolerance mm

Rack travel in mm: 12.00 Tolerance mm: +-0.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300 : + - 0.30

Tolerance Check

tolerance °NW : + 0.50

Start of delivery mark

Check

: + 0.40 tolerance °NW

Barrel no. 1 :

BASIC SETTING

950 Rated speed rpm

Rack travel in mm: 12.05 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 244.0

Tolerance

cm3/1000 strokes : +- 1.0

G20

- 4.0	GUIDE SLEEVE POSITION
1	Rated speed rpm : 1190
5.0	Rack travel in mm : 11.00 Tolerance mm : +- 2.70
9.0	
300	FULL LOAD DELIVERY AT FULL LOAD STOP
4.70	Rated speed rpm : 950 Aneroid pressure
- 0.20	hPa : 1000
22.0	Del. quantity cm3/1000 strokes : 244.0
+	Tolerance
- 3.0	cm3/1000 strokes : +- 1.0 Check tolerance
- 6.0	cm3/1000s. : +- 4.0 Spreed
\mathbf{I}	Tolerance
an I	cm3/1000 strokes : 5.0
4	Check tolerance
12.0	cm3/1000s. : 9.0
300 1.64 0.20 1025 9.00 0.15 764 6.22 0.25	control lever position degree : 114.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.00 Rated speed rpm : 1015 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1115 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1250
+	LOUISING
0.25	LOW IDLE
1330	control lever position degree : 69.0
13.50	tolerance degree : + 4.0
0.50	
	9.0 300 4.70 - 0.20 22.0 - 3.0 - 6.0 8.0 12.0 ON PUMP 300 1.64 0.20 1025 9.00 0.15 764 6.22 0.25 500 3.78 0.25

	700	
Rated speed rpm	: 300 : 4.70 : ← 0.10	†
rack travel mm Tolerance mm	: 4.70	Rated speed rpm : > 180 Rated speed rpm : < 220
Tolerance mm	: ← 0.10	+ Rated speed rpm : < 220
		+
Rated speed rpm	: 200	+ Check
		+ speed 1/min :> 160
CRT mm min.	: > 6.20	+ Check
		+ speed 1/min : < 240
Rated speed rpm	• 355	1
natea speca spar	. 333	
		FUEL DELIVERY CHARACTERISTICS
TORQUE CONTROL		T TOEL DELIVERT CHARACTERISTICS
TORQUE CONTROL		T Anapoid procesure
Datad amand non	. 050	+ Aneroid pressure
Rated speed rpm rack travel mm	. 42.05	hPa : 1000 Rated speed rpm : 550
rack travel mm Tolerance mm	: 12.05	+ Rated speed rpm : 330
Tolerance mm	: ← 0.05	+ Del. quantity
		+ cm3/1000 strokes : 264.0
Rated speed rpm	: 700	† Tolerance
rack travel mm	: 11.85	+ cm3/1000 strokes : + 3.0
rack travel mm Tolerance mm	: +- 0.10	+ Check tolerance
		+ cm3/1000s. : +- 6.0
Rated speed rom	• 550	1
Rated speed rpm rack travel mm	• 11 40	Aneroid pressure
rack travel mm Tolerance mm	· 11.4U	
torerance www	: + 0.10	+ hPa : -
	706	Rated speed rpm : 550
Rated speed rpm	: 300	+ Del. quantity
rack travel mm	: 10.90	+ cm3/1000 strokes : 174.0
Tolerance mm	: +- 0.30	† Tolerance
		+ cm3/1000 strokes : +- 1.0
		+ Check tolerance
ANEROID/ALTITUDE		+ cm3/1000s. : +- 4.0
COMPENSATOR TEST		1
COMPENDATOR TEST		
		BREAKAWAY
SETTING		T DREADAWAT
EI I TIAR		T
	. 050	Topoli traval in ma a 11 00
kated speed rpm	: YOU	+ Rack travel in mm : 11.00 + Rated speed rpm : 1015
Rated speed rpm Pressure hPa rack travel mm	: 1000	+ Kated speed rpm : 1075
rack travel mm	: 72.05	+ Tolerance 1/min : +- 5
Tolerance mm	: +- 0.05	+
		+
MEASUREMENT		+
		→ STARTING FUEL DELIVERY
Pressure hPa	• -	1
Rated speed rpm	950	Rated speed rpm : 100
naceu apeeu (piii		+ rack travel mm : 20.25
rack travel mm Tolerance mm	. 0.40	
iolerance mm	: +- 0.20	
	050	+ Del. quantity
Rated speed rpm	: 950	+ cm3/1000 strokes : 160.0
		† Tolerance
Pressure hPa	: 290	+ cm3/1000 strokes : + 15.0
rack travel mm	: 9.35	+ Check tolerance
Tolerance mm	: + 0.20	+ cm3/1000s. : +- 19.0
		1
Pressure hPa	: 500	1
		I
rack travel mm		T
Tolerance mm	: +- 0.05	I OU TOLE
		+ LOW IDLE
**************************************		†
START CUT-OUT		Rated speed rpm : 300

rack travel mm	:	4.70
Tolerance mm	: +-	0.20
Del. quantity		
cm3/1000 strokes	:	22.0
Tolerance		
cm3/1000 strokes	: +-	3.0
Check tolerance		
cm3/1000s.	: +-	6.0
Spreed		
Tolerance		
cm3/1000 strokes	:	8.0
Check tolerance		
cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.06.95 Test oil : ISO 4113

Combination No. : 0 402 646 757

Injection pump

Pump designation : PE6P12DA32OLS7836

: -10

EP type number : 0 412 626 854

Governor

Governer design. : RQ300/1050PA1030-25

Governer no. : 0 421 801 771

Cust. part No. : 0260743002

Customer-spec. information
Customer : MB-NFZ
Motor : OM401 LA
Power KW : 200.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Tolerance l/h: +- 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.55
Tolerance mm : + 0.05
Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360

Tolerance : +- 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 13.00 Tolerance mm : + 0.05

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 190.0

Tolerance + 1.0 +	
	- CONTROL LEVER
Check tolerance cm3/1000s. : + 4.0	control lever position degree : 95.0
Spreed Tolerance cm3/1000 strokes : 5.0	tolerance degree : +- 4.0 RATED SPEED
Check tolerance cm3/1000s. : 9.0	rack travel mm : 12.00 Rated speed rpm : 1098 Tolerance 1/min : + 8
Rated speed rpm : 300	•
Rack travel in mm: 5.80 Tolerance mm: + 0.30 Del. quantity	rack travel mm : 4.00 Rated speed rpm : 1185 Tolerance 1/min : +- 15
cm3/1000 strokes : 19.0	rack travel mm : 0.75
Tolerance cm3/1000 strokes : +- 3.0	Tolerance mm : + 0.75 Rated speed rpm : 1300
Check tolerance + 6.0 + Spreed + + 6.0	
Tolerance + cm3/1000 strokes : 6.0 +	LOW IDLE
Check tolerance cm3/1000s. : 10.0	control lever position degree : 72.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	tolerance degree : + 4.0 Testing:
į	Rated speed rpm : 300
GUIDE SLEEVE POSITION	rack travel mm : 5.80 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION Rated speed rpm : 600	rack travel mm : 5.80 Tolerance mm : +- 0.10 rack travel mm : 2.00
Rated speed rpm : 600 Rack travel in mm: 20.00	rack travel mm : 5.80 Tolerance mm : +- 0.10
Rated speed rpm : 600	rack travel mm : 5.80 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 415
Rated speed rpm : 600 Rack travel in mm: 20.00	rack travel mm : 5.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 415 Tolerance 1/min : + 20
Rated speed rpm : 600 Rack travel in mm : 20.00 Tolerance mm : + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050	rack travel mm : 5.80 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 415 Tolerance 1/min : +- 20 Rated speed rpm : 200 CRT mm min. : > 7.60
Rated speed rpm : 600 Rack travel in mm : 20.00 Tolerance mm : + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050 Aneroid pressure hPa : 800	rack travel mm : 5.80 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 415 Tolerance 1/min : +- 20 Rated speed rpm : 200 CRT mm min. : > 7.60 TORQUE CONTROL
Rated speed rpm : 600 Rack travel in mm : 20.00 Tolerance mm : + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 190.0	rack travel mm : 5.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 415 Tolerance 1/min : + 20 Rated speed rpm : 200 CRT mm min. : > 7.60 TORQUE CONTROL Rated speed rpm : 1050 rack travel mm : 13.00
Rated speed rpm : 600 Rack travel in mm : 20.00 Tolerance mm : + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 190.0 Tolerance	rack travel mm : 5.80 Tolerance mm : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 415 Tolerance 1/min : +- 20 Rated speed rpm : 200 CRT mm min. : > 7.60 TORQUE CONTROL Rated speed rpm : 1050
Rated speed rpm : 600 Rack travel in mm : 20.00 Tolerance mm : + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	rack travel mm : 5.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 415 Tolerance 1/min : + 20 Rated speed rpm : 200 CRT mm min. : > 7.60 TORQUE CONTROL Rated speed rpm : 1050 rack travel mm : 13.00 Tolerance mm : + 0.05
Rated speed rpm : 600 Rack travel in mm : 20.00 Tolerance mm : + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	rack travel mm : 5.80 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 415 Tolerance 1/min : + 20 Rated speed rpm : 200 CRT mm min. : > 7.60 TORQUE CONTROL Rated speed rpm : 1050 rack travel mm : 13.00 Tolerance mm : + 0.05

		+ Aneroid pressure
ANEROID/ALTITUDE COMPENSATOR TEST		- hPa : - Rated speed rpm : 500 Del. quantity
		+ cm3/1000 strokes : 132.0 + Tolerance
SETTING		+ cm3/1000 strokes : + 1.0
Rated speed rpm Pressure hPa rack travel mm	: 400 : 800 : 13.00	+ Check tolerance + cm3/1000s. : +- 4.0 + Spreed + Tolerance
Tolerance mm	: 0.05	cm3/1000 strokes : 8.0 Check tolerance
MEASUREMENT		cm3/1000s. : 12.0
Pressure hPa Rated speed rpm rack travel mm Tolerance mm		BREAKAWAY
Rated speed rpm	: 400	Rack travel in mm: 12.00 Rated speed rpm: 1098
Pressure hPa rack travel mm Tolerance mm	: 200 : 11.40 : + 0.20	+ Tolerance 1/min : +- 8
		STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 350 : 12.25 : +- 0.20	Rated speed rpm : 100 Del. quantity
TO COT OF THE SAME	. 0,23	+ cm3/1000 strokes : 210.0
START CUT-OUT		- + Tolerance - cm3/1000 strokes : +- 15.0 - Check tolerance
Rated speed rpm Rated speed rpm		+ cm3/1000s. : +- 19.0
Check		‡
speed 1/min Check	: > 80	LOW IDLE
speed 1/min	: < 240	+ Rated speed rpm : 300
0.00 th		- + rack travel mm : 5.80
FUEL DELIVERY CHA	RACTERISTICS	Tolerance mm : + 0.30 + Del. quantity
Aneroid pressure hPa	: 800	cm3/1000 strokes : 19.0
Rated speed rpm	: 550	+ cm3/1000 strokes : +- 3.0
Del. quantity cm3/1000 strokes	: 189.0	+ Check tolerance + cm3/1000s. :+- 6.0
Tolerance cm3/1000 strokes Check tolerance	: +- 3.0	+ Spreed + Tolerance + cm3/1000 strokes : 6.0
cm3/1000s. Spreed	: ← 6.0	Check tolerance cm3/1000s. : 10.0
Tolerance cm3/1000 strokes	: 8.0	‡
Check tolerance cm3/1000s.	: 12.0	End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.01.96 Test oil : ISO 4113

Combination No. : 0 402 646 785

Injection pump

Pump designation : PE6P120A320LS7869 EP type number : 0 412 626 887

Governor

Governer design. : RQV300...1050PA1078K

Governer no. : 0 421 815 359

Cust. part No. : 9275445

Customer-spec. information Customer : LIEBHERR : D 9406 TI Motor Power KW : 300.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 40 : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Overflow quantity

min. L/h : 165 Tolerance L/h : + 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

rest pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.65
Tolerance mm : +- 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-6-3-5-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance $^{\circ}NW$: +- 0.50

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 12.00 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 279.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 4.0

	t .
Spreed	Rated speed rpm : 1320
Tolerance	guide sleeve
cm3/1000 strokes : 5.0	travel mm : 13.50
CIIDY 1000 SEFORES . J.O	Tolerance mm : + 0.50
Check tolerance	Total differential . ** 0.50
cm3/1000s. : 9.0	T
(11)3/10005 9.0	GUIDE SLEEVE POSITION
Rated speed rpm : 300	T GOIDE SEEENE POSITION
rated speed that . Soo	Rated speed rpm : 1185
Rack travel in mm : 6.10	T Nated speed (pill : 1105
Tolerance mm : + 0.10	Rack travel in mm: 10.80
Del. quantity	+ Tolerance mm : +- 1.30
cm3/1000 strokes : 50.0	Total alloc likil
Tolerance	
cm3/1000 strokes : + 3.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	
cm3/1000s. : +- 6.0	+ Rated speed rpm : 1050
Spreed	Aneroid pressure
Tolerance	hPa : 1550
cm3/1000 strokes : 6.0	+ Del. quantity
Check tolerance	+ cm3/1000 strokes : 279.0
cm3/1000s. : 10.0	† Tolerance
_	+ cm3/1000 strokes : +- 1.0
	† Check tolerance
(B) SETTING OF INJECTION PUMP	+ cm3/1000s. : +- 4.0
WITH GOVERNOR	+ Spreed
	+ Tolerance
GUIDE SLEEVE TRAVEL	+ Check tolerance
Rated speed rpm : 300	+ cm3/1000s. : 9.0
Rated speed rpm : 300 guide sleeve	Ť
travel mm : 1.69	I
Tolerance mm : + 0.25	T CONTROL LEVER
roter arice num o.es	CONTROL ELVER
Rated speed rpm : 1117	→ control lever
guide sleeve	position degree : 121.0
travel mm : 10.38	+ tolerance degree : + 4.0
Tolerance mm : +- 0.25	}
	+ RATED SPEED
Rated speed rpm : 746	+
guide sleeve	+ rack travel mm : 11.00
travel mm : 6.20	Rated speed rpm : 1105
Tolerance mm : + 0.25	+ Tolerance 1/min : +- 5
Detect or and many 1 757	
Rated speed rpm : 353	rack travel mm : 4.00 Rated speed rpm : 1185
guide sleeve travel mm : 2.45	+ Rated speed rpm : 1185 + Tolerance 1/min : + 15
Tolerance mm : + 0.25	I loceratice triititi . *** 15
ioterance num o.25	rack travel mm : 0.50
Rated speed rpm : 403	+ Tolerance mm : + 0.50
guide sleeve	+ Rated speed rpm : 1300
travel mm : 3.18	
Tolerance mm : + 0.25	+
Rated speed rpm : 450	+ LOW IDLE
guide sleeve	+
travel mm : 3.66	†
Tolerance mm : + 0.25	+

G28

		•
control lever position degree tolerance degree		Pressure hPa : 725 rack travel mm : 10.70 Tolerance mm : + 0.05
Testing:		Pressure hPa : 525 rack travel mm : 9.50
Rated speed rpm rack travel mm Tolerance mm	: 300 : 6.10 : ← 0.10	rack travel mm : 9.50 Tolerance mm : + 0.10
Rated speed rpm	: 200	FUEL DEL TUEDY CHARACTERISTICS
CRT mm min.	: > 8.00	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 400	Aneroid pressure hPa : 1550 Rated speed rpm : 800 Del. quantity
TORQUE CONTROL		+ cm3/1000 strokes : 295.0
Rated speed rpm rack travel mm Tolerance mm	: 1050 : 12.00 : + 0.05	+ Tolerance + cm3/1000 strokes : + 3.0 + Check tolerance + cm3/1000s. : +- 6.0
Rated speed rpm rack travel mm Tölerance mm	: 800 : 11.65 : + 0.10	Aneroid pressure hPa : 1550 Rated speed rpm : 500 Del. quantity
Rated speed rpm rack travel mm Tolerance mm	: 9.75 : + 0.10	+ cm3/1000 strokes : 270.0 + Tolerance + cm3/1000 strokes : + 3.0 + Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 11.85	cm3/1000s. : +- 6.0 Aneroid pressure hPa : -
Rated speed rpm rack travel mm Tolerance mm	: 10.25	Rated speed rpm : 550 Del. quantity cm3/1000 strokes : 250.0 Tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		
SETTING		+ Tolerance + cm3/1000 strokes : 8.0
Rated speed rpm Pressure hPa rack travel mm	: 1050 : 1550 : 12.00	+ Check tolerance + cm3/1000s. : 12.0
Tolerance mm	: + 0.05	BREAKAWAY
MEASUREMENT		Rack travel in mm : 11.00
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 1050 : 9.35 : +- 0.10	Rack travel in mm: 17.00 Rated speed rpm: 1105 Tolerance 1/min: + 5
Rated speed rpm	: 1050	STARTING FUEL DELIVERY

H01

Rated speed rpm	:	100
rack travel mm	:	9.55
Tolerance mm	: +-	0.30
Del. quantity		
cm3/1000 strokes	:	170.0
Tolerance		
cm3/1000 strokes	: +-	10.0
Check tolerance		
cm3/1000s.	: +-	14.0

LOW IDLE

Rated speed rpm	:		300
rack travel mm	:		6.10
Tolerance mm	:	+-	0.10
Del. quantity			
cm3/1000 strokes	:		50.0
Tolerance			
cm3/1000 strokes	:	+-	3.0
Check tolerance			
cm3/1000s.	:	+-	6.0
Spreed			
Tolerance			
cm3/1000 strokes	:		6.0
Check tolerance			
cm3/1000s.	:		10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.01.96 Test oil : ISO 4113

Combination No. : 0 402 646 969

Injection pump

Pump designation : PE6P120A320RS7248

: -10Z

EP type number : 0 412 626 901

Governor

Governer design. : RQV275...1150PA986

Governer no. : 0 421 813 920

Cust. part No. : 1248041/4

Customer-spec. information Customer : DAF Motor : RS 200 L Power KW : 200.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 130 Tolerance L/h : +- 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0
x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 11.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : + 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 11.70
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 167.0

Tolerance + cm3/1000 strokes : + 1.0 +	
<u> </u>	CONTROL LEVER
Check tolerance cm3/1000s. : + 4.0	control lever position degree : 120.0
Spreed + Tolerance +	tolerance degree : +- 4.0
cm3/1000 strokes : 5.0	RATED SPEED
Check tolerance cm3/1000s. : 9.0	rack travel mm : 10.70 Rated speed rpm : 1182 Tolerance 1/min : +- 5
Rated speed rpm : 275	
Rack travel in mm: 5.40	rack travel mm : 4.00 Rated speed rpm : 1290
Tolerance mm : + 0.10 +	Tolerance 1/min : + 15
Del. quantity + cm3/1000 strokes : 16.0 +	rack travel mm : 0.70
Tolerance + cm3/1000 strokes : + 3.0 +	Tolerance mm : + 0.70 Rated speed rpm : 1450
Check tolerance + 6.0 +	
Spreed	1.011.70.7
Tolerance + cm3/1000 strokes : 8.0 +	LOW IDLE
Check tolerance +	
cm3/1000s. : 12.0	<pre>control lever position degree : 83.0 tolerance degree : +- 4.0</pre>
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Testing:
+	Rated speed rpm : 275
GUIDE SLEEVE POSITION	rack travel mm : 4.70 Tolerance mm : + 0.10
Rated speed rpm : 1335	Rated speed rpm : 175
Rack travel in mm: 10.30 Tolerance mm: + 1.30	CRT mm min. :> 7.50
Total alice (IRI)	Rated speed rpm : 340
FULL LOAD DELIVERY AT FULL LOAD STOP	TARALIE ANITRAL
Rated speed rpm : 1000	TORQUE CONTROL
Aneroid pressure + hPa : 1000 +	Rated speed rpm : 1000 rack travel mm : 11.70
hPa : 1000 + Del. quantity +	Tolerance mm : + 0.05
cm3/1000 strokes : 167.0	Rated speed rpm : 1150
cm3/1000 strokes : +- 1.0 Check tolerance	rack travel mm : 11.70 Tolerance mm : +- 0.10
cm3/1600s. : +- 4.0 +	TOCCIONEC UNIT
Spreed + Tolerance +	ANEROID/ALTITUDE
cm3/1000 strokes : 5.0 + Check tolerance	COMPENSATOR TEST
cm3/1000s. : 9.0	SETTING

Rated speed rpm	:	600
Pressure hPa	:	1000
rack travel mm	:	11.70
Tolerance mm	: +	 0.05
MEASUREMENT		
Pressure hPa	:	-
Rated speed rpm	:	600
nack thankal man	•	0.20

Rated speed rpm : 600
rack travel mm : 9.20
Tolerance mm : + 0.15

Rated speed rpm : 600

Pressure hPa : 340 rack travel mm : 10.75 Tolerance mm : + 0.05

Pressure hPa : 200 rack travel mm : 9.70 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 600
Del. quantity

cm3/1000 strokes : 117.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 10.70 Rated speed rpm: 1182 Tolerance 1/min: + 5

LOW IDLE

Rated speed rpm : 275
rack travel mm : 5.40
Tolerance mm : + 0.10
Del. quantity

cm3/1000 strokes : 16.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : +- 6.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.01.96 Test oil : ISO 4113

Combination No. : 0 402 648 792

Injection pump

Pump designation : PE8P120A320LS7840

: -10

EP type number : 0 412 628 856

Governor

Governer design. : RQ300/1050PA1276 Governer no. : 0 421 801 806

Witt. part No. : 0270740302

Customer-spec. information
Customer : MB-NFZ
Motor : 0M442A
Power KW : 250.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C :

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 8-7-2-6-3 :-5-4-1

Phasing : 0-45-90-135-180

: -225-270-315 Tolerance : + 0.30

Check

tolerance "NW : + 0.50

Start of delivery mark

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 13.45 Tolerance mm : +- 0.05

Det. quantity

cm3/1000 strokes : 212.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.	: +- 4.0	travel mm : 6.00 Tolerance mm : + 0.10
Spreed Tolerance		Rated speed rpm : 1270
cm3/1000 strokes	: 6.0	+ guide sleeve + travel mm : 11.50
Check tolerance cm3/1000s.	: 9.0	Tölerance mm : +- 0.50
Rated speed rpm	: 300	Rated speed rpm : 892 guide sleeve travel mm : 6.26
Rack travel in mm Tolerance mm Del. quantity		Tolerance mm : + 0.10
cm3/1000 strokes Tolerance	: 13.0	GUIDE SLEEVE POSITION
cm3/1000 strokes Check tolerance	: +- 3.0	Rated speed rpm : 650
cm3/1000s. Spreed Tolerance	: +- 6.0	Rack travel in mm : 20.00 Tolerance mm : + 0.80
cm3/1000 strokes Check tolerance	: 8.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 12.0	Rated speed rpm : 700
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	Aneroid pressure hPa : 750 Del. quantity cm3/1000 strokes : 212.0
GUIDE SLEEVE TRAV	EL	+ Tolerance + cm3/1000 strokes : +- 1.0 + Check tolerance
Rated speed rpm guide sleeve	: 300	cm3/1000s. : +- 4.0 Spreed
travel mm Tolerance mm	: 1.86 : + 0.20	Tolerance : 6.0
Rated speed rpm guide sleeve	: 1103	+ Check tolerance + cm3/1000s. : 9.0
travel mm Tolerance mm	: 6.71 : + 0.15	
Rated speed rpm	: 1050	CONTROL LEVER
guide sleeve travel mm	: 6.35	+ control lever + position degree : 95.0
Tolerance mm	: +- 0.10	tolerance degree : +- 4.0
Rated speed rpm guide sleeve	: 831	RATED SPEED
travel mm Tolerance mm	: 6.09 : + 0.10	<pre>+ rack travel mm : 11.80 + Rated speed rpm : 1098 + Tolerance 1/min : + 8</pre>
Rated speed rpm guide sleeve	: 447	rack travel mm : 4.00
travel mm Tolerance mm	: 4.72 : + 0.10	Rated speed rpm : 1175 Tolerance 1/min : + 15
Rated speed rpm	: 540	+ rack travel mm : 0.50 + Tolerance mm : + 0.50

Rated speed rpm	: 1300 +	rack travel mm : 11.25 Tolerance mm : + 0.15
LOW IDLE		Rated speed rpm : 400
control lever position degree tolerance degree		Pressure hPa : 200 rack travel mm : 11.60 Tolerance mm : + 0.20 Pressure hPa : 400
Testing:	<u>†</u>	rack travel mm : 12.40 Tolerance mm : + 0.20
Rated speed rpm rack travel mm Tolerance mm	: 300 : 5.00 : +- 0.10	START CUT-OUT
rack travel mm Rated speed rpm Tolerance 1/min	: 400	Rated speed rpm : > 100 Rated speed rpm : < 220 Check
Rated speed rpm	: 200	speed 1/min :> 80 Check speed 1/min :< 240
CRT mm min.	: > 6.60	Speed Militi . C40
TORQUE CONTROL	+	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.45 : + 0.05	Aneroid pressure hPa : 750 Rated speed rpm : 1050 Del. quantity
Rated speed rpm rack travel mm Tolerance mm	: 1050 : 12.80	cm3/1000 strokes : 194.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 13.15	cm3/1000s. : + 5.0 Aneroid pressure hPa : -
Rated speed rpm rack travel mm Tolerance mm	; 13.45 +	Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 137.0 Tolerance
ANEROID/ALTITUDE		cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0
SETTING	<u>†</u>	BREAKAWAY
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 400 : 750 : 13.45 : + 0.05	Rack travel in mm: 11.80 Rated speed rpm: 1098 Tolerance 1/min: + 8
MEASUREMENT	‡	STARTING FUEL DELIVERY
Pressure hPa Rated speed rpm	: 400	Rated speed rpm : 100

H08

Del. quantity cm3/1000 strokes : 200.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance

cm3/1000s. : +- 14.0

LOW IDLE

300 Rated speed rpm 6.50 rack travel mm Tolerance mm : +- 0.30 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 17.01.96 Edition Test oil : ISO 4113

Combination No. : 0 402 648 794

Injection pump

Pump designation : PE8P120A320LS7890 EP type number : 0 412 628 913

Governor

Governer design. : RQV350...900PA1266 Governer no. : 0 421 814 171

Cust. part No. : 0260740502

Customer-spec. information Customer : MB-NFZ : OM442 LA Motor Power KW : 327.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C ; +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : Tolerance bar : +- 0.1

Overflow quantity

min. L/h : 100 Tolerance L/h : +- 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter:

x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

: 5.25 Prestroke mm : +- 0.05 Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm: 20.50 Tolerance mm : +- 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

Barrel no. : 8

BASIC SETTING

600 Rated speed rpm :

Rack travel in mm: 12.20

Rack travel in mm: 12.20 Tolerance mm : + 0.10
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 259.0	guide sleeve travel mm : 10.00 Tolerance mm : +- 0.25
Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 1160 guide sleeve
Check tolerance cm3/1000s. : + 4.0	travel mm : 11.50 Tolerance mm : +- 0.50
Spreed Tolerance cm3/1000 strokes : 6.0	GUIDE SLEEVE POSITION
Check tolerance	Rated speed rpm : 1032
cm3/1000s. : 9.0	Rack travel in mm : 13.50 Tolerance mm : + 2.00
Rated speed rpm : 350	
Rack travel in mm: 4.00 Tolerance mm: + 0.30	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 14.0	Rated speed rpm : 600 Aneroid pressure
Tolerance + 3.0 +	hPa : 600 Del. quantity
Check tolerance cm3/1000s. : +- 6.0	cm3/1000 strokes : 259.0 Tolerance
Spreed + Tolerance +	cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes : 6.0 + Check tolerance	cm3/1000s. : +- 4.0 Spreed
cm3/1000s. : 10.0	Tolerance cm3/1000 strokes : 6.0
-	Check tolerance
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	CONTROL LEVER
Rated speed rpm : 350	control lever position degree : 118.0
guide sleeve travel mm : 1.69	tolerance degree : +- 4.0
Tolerance mm : + 0.20	RATED SPEED
Rated speed rpm : 958 + guide sleeve +	rack travel mm : 13.50
travel mm : 7.30 + Tolerance mm : + 0.15	Rated speed rpm : 945 Tolerance 1/min : +- 5
+	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1025
travel mm : 4.89 + Tolerance mm : +- 0.25	Tolerance 1/min : +- 15
Rated speed rpm : 520	rack travel mm : 0.75 Tolerance mm : + 0.75
guide sleeve travel mm : 3.23	Rated speed rpm : 1200
Tolerance mm : + 0.25	
Rated speed rpm : 1073	LOW IDLE

control lever position degree : 65.0 tolerance degree : +- 4.0	+ Check + speed 1/min : > 80 + Check + speed 1/min : < 290
Testing:	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 350 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 250 CRT mm min. : > 6.00 Rated speed rpm : 350	Aneroid pressure hPa : 1300 Rated speed rpm : 880 Del. quantity cm3/1000 strokes : 282.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0
TORQUE CONTROL Rated speed rpm : 600 rack travel mm : 12.20 Tolerance mm : + 0.05 Rated speed rpm : 880 rack travel mm : 14.50 Tolerance mm : + 0.10	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 191.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0
ANEROID/ALTITUDE COMPENSATOR TEST MEASUREMENT	BREAKAWAY Rack travel in mm : 13.50 Rated speed rpm : 945 Tolerance 1/min : +- 5
Pressure hPa : 225 rack travel mm : -2.20 Tolerance mm : +- 0.05 Pressure hPa : 350 rack travel mm : -0.90 Tolerance mm : +- 0.10 Pressure hPa : 850 rack travel mm : 0.90 Tolerance mm : +- 0.05 Pressure hPa : 1050 rack travel mm : 2.10	STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 270.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 24.0
Tolerance mm : + 0.10 START CUT-OUT Rated speed rpm : > 100 Rated speed rpm : < 270	LOW IDLE Rated speed rpm : 350 rack travel mm : 4.00 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 14.0 Tolerance cm3/1000 strokes : + 3.0

Check tolerance cm3/1000s. : +- 6.0

Spreed
Tolerance
cm3/1000 strokes : 6.0

Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 17.01.96 Edition : ISO 4113 Test oil

Combination No. : 0 402 746 954

Injection pump

Pump designation : PES6P120A720RS7301 EP type number : 0 412 726 900

Governor

Governer design. : RQV300...1050PA1090K

Governer no. : 0 421 815 362

Cust. part No. : 9275449

Customer-spec. information Customer : LIEBHERR : D 926 TI Motor Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 40 : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Tolerance l/h: + 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar : +- 1.5 Tolerance bar

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3
x length mm : 1000 3.0

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : +- 1.0

Prestroke mm : 4.75 Tolerance mm : + 0.05 Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 14.35 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 240.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

: +- 4.0

Spreed Tolerance	Rated speed rpm : 1320 guide sleeve
cm3/1000 strokes : 5.0	travel mm : 13.50 Tolerance mm : +- 0.50
Check tolerance cm3/1000s. : 9.0	
Rated speed rpm : 350	GUIDE SLEEVE POSITION
Rack travel in mm : 6.10	+ Rated speed rpm : 1170
Tolerance mm : + 0.20 Del. quantity	+ Rack travel in mm : 13.00 + Tolerance mm : +- 1.30
cm3/1000 strokes : 25.0	Total arice limit
Tolerance cm3/1000 strokes : + 3.0 Check tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. : +- 6.0 Spreed	Rated speed rpm : 1050 Aneroid pressure
Tolerance cm3/1000 strokes : 6.0	hPa : 1600 + Del. quantity
Check tolerance	+ cm3/1000 strokes : 240.0
cm3/1000s. : 10.0	Tolerance + cm3/1000 strokes : + 1.0
(B) SETTING OF INJECTION PUMP	+ Check tolerance + cm3/1000s. : +- 4.0
WITH GOVERNOR	+ Spreed + Tolerance
	+ cm3/1000 strokes : 5.0
GUIDE SLEEVE TRAVEL	+ Check tolerance + cm3/1000s. : 9.0
Rated speed rpm : 300 guide sleeve	+
travel mm : 1.69 Tolerance mm : + 0.15	CONTROL LEVER
Rated speed rpm : 1117	control lever
guide steeve travel mm : 10.38	<pre>+ position degree : 121.0 + tolerance degree : +- 4.0</pre>
Tolerance mm : +- 0.20	+
Rated speed rpm : 746	+ RATED SPEED
guide sleeve	rack travel mm : 13.35 Rated speed rpm : 1080
travel mm : 6.20 Tolerance mm : +- 0.25	+ Rated speed rpm : 1080 + Tolerance 1/min : +- 5
Rated speed rpm : 353 guide sleeve	+ rack travel mm : 4.00 + Rated speed rpm : 1180
travel mm : 2.45	Tolerance 1/min : + 15
Tolerance mm : +- 0.25	+ rack travel mm : 0.50
Rated speed rpm : 403 guide sleeve	Tolerance mm : +- 0.50 Rated speed rpm : 1300
travel mm : 3.18	+
Tolerance mm : + 0.25	Ţ
Rated speed rpm : 450 guide sleeve	+ LOW IDLE
travel mm : 3.66	t control lover
Tolerance mm : ← 0.25	<pre>+ control lever + position degree : 79.0</pre>

tolerance degree	: +- 4.0	1	Rated speed rpm	: 1050
Testing:		Ŧ	Pressure hPa	: 800
	750	T	rack travel mm	: 13.75
Rated speed rpm	: 350 : 6.10	+	Tolerance mm	: +- 0.05
rack travel mm Tolerance mm	: 6.10	+		
Tolerance mm	: ← 0.10	+	Pressure hPa	: 650
		1	rack travel mm	
Rated speed rpm	250	1	Tolerance mm	
natia opeca i piii	• 656	1	TO COT GITTEE THAT	0.110
CRT mm min.	• > 0.10	Ţ		
CIST HAD HELL.	. > 7.10	不	CTART CUT OUT	
Datad award awa	. /75	T	START CUT-OUT	
Rated speed rpm	: 475	Ť		
		+	Rated speed rpm	: > 100
		+	Rated speed rpm	: < 270
TORQUE CONTROL		+		
		+	Check	
Rated speed rpm	1050	1	speed 1/min	: > 80
nack though ma	: 14.35		Check	00
rack travel mm Tolerance mm	- 1 0 05	T		
iolerance mm	: +- 0.05	†	speed 1/min	: < 290
		+		
Rated speed rpm	: 950	+		
rack travel mm	: 13.85	+	FUEL DELIVERY CHA	RACTERISTICS
Tolerance mm	: +- 0.10	1		
		1	Aneroid pressure	
Dated speed rom	• 000	1	hPa	: 1600
Rated speed rpm rack travel mm	. 17 70	7	Rated speed rpm	. 1000
rack travel mm Tolerance mm	: 13.70	-	Rated speed rpm	: 000
lolerance mm	: ← 0.10	†	Del. quantity	
		+	cm3/1000 strokes	: 219.0
Rated speed rpm	: 800	+	Tolerance	
rack travel mm	: 13.35	1	cm3/1000 strokes	: 3.0
Tolerance mm	: +- 0.10	1	Check tolerance	
TOTE: GIVEC WIN		1	cm3/1000s.	: +- 6.0
Detect aread non	. 400	7	CIID7 (0003.	. 1- 0.0
Rated speed rpm	: 12.85	T	Amanadal muanarina	
rack travel mm Tolerance mm	12.85	†	Aneroid pressure	4.00
Tolerance mm	: ← 0.10	†	hPa	: 1600
		+	Rated speed rpm	
Rated speed rpm	: 500	+	Del. quantity	
rack travel mm		+	cm3/1000 strokes	: 199.0
Tolerance mm		1	Tolerance	
10001 41,00	* 0110	1	cm3/1000 strokes	: +- 3.0
			Check tolerance	3.0
ANEROID/ALTITUDE		- T	cm3/1000s.	: +- 6.0
		T	CIII 7 10003.	. +- 0.0
COMPENSATOR TEST		†	•	
			Aneroid pressure	
			hPa	: -
SETTING		+	Rated speed rpm	: 600
		+	Del. quantity	
Rated speed rpm	: 1050	+	cm3/1000 strokes	: 185.0
Pressure ha	: 1600		Tolerance	
rack travel mm	: 14.35		cm3/1000 strokes	: +- 1.0
Tolerance mm	: +- 0.05		Check tolerance	• • • • • • • • • • • • • • • • • • • •
roterance mm	. +- 0.05			
			cm3/1000s.	: +- 4.0
MEASUREMENT			Spreed	
			Tolerance	w.
Pressure hPa	; -	+	cm3/1000 strokes	: 8.0
Rated speed rpm	: 1050	1	Check tolerance	
rack travel mm	: 11.90		cm3/1000s.	: 12.0
Tolerance mm	: + 0.10	1		•
IOLEI GITCE IMI	0.10	T		
		T		

BREAKAWAY

Rack travel in mm: 13.35
Rated speed rpm: 1080
Tolerance 1/min: + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 12.85 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 155.0

Tolerance

cm3/1000 strokes : + 10.0 Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 350 6.10 rack travel mm Tolerance mm 0.20 Del. quantity cm3/1000 strokes : 25.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.01.96 Test oil : ISO 4113

Combination No. : 0 402 846 067

Injection pump

Pump designation : PE6P12OA32ORS8015 EP type number : 0 412 826 016

Governor

Governer design. : RQV300...1050PA1225 Governer no. : 0 421 814 151

Cust. part No. : 11031773

: -P02 v.11/95

Customer—spec. information Customer : VME

Motor : TD122KAE Power KW : 243.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.00
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 11.00 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : +- 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 9.30 Tolerance mm : + 0.05

Dal markets

Del. quantity cm3/1000 strokes : 236.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 4.0	<pre>+ guide sleeve + travel mm : 4.67 + Tolerance mm : + 0.25</pre>
Spreed Tolerance cm3/1000 strokes : 8.0	Rated speed rpm : 1310 guide sleeve
Check tolerance cm3/1000s. : 11.0	+ travel mm : 11.50 + Tolerance mm : +- 0.50 +
Rated speed rpm : 325	GUIDE SLEEVE POSITION
Rack travel in mm : 3.80 Tolerance mm : +- 0.30	Rated speed rpm : 1190
Del. quantity cm3/1000 strokes : 23.0 Tolerance	+ Rack travel in mm : 9.50 + Tolerance mm : +- 2.50
<pre>cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0</pre>	FULL LOAD DELIVERY AT FULL LOAD STOP
Spreed Tolerance	Rated speed rpm : 700 Aneroid pressure
cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0	+ hPa : 1500 + Del. quantity + cm3/1000 strokes : 236.0
CIII57 (0005. : 6.0	+ Tolerance + cm3/1000 strokes : + 1.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Check tolerance cm3/1000s. : +- 4.0 Spreed
GUIDE SLEEVE TRAVEL	Tolerance : 8.0
Rated speed rpm : 325 guide sleeve	+ Check tolerance + cm3/1000s. : 11.0
travel mm : 2.09 Tolerance mm : + 0.25	
Rated speed rpm : 1095 guide sleeve	+ CONTROL LEVER + control lever
travel mm : 7.90 Tolerance mm : + 0.25	position degree : 61.0 tolerance degree : + 4.0
Rated speed rpm : 1028 guide sleeve	control lever position degree : 125.0
travel mm : 6.85 Tolerance mm : +- 0.25	tolerance degree : +- 4.0 RATED SPEED
Rated speed rpm : 387 guide sleeve	+ rack travel mm : 8.30
travel mm : 2.96 Tolerance mm : + 0.25	Rated speed rpm : 1105 Tolerance 1/min : +- 5
Rated speed rpm : 437 guide sleeve	rack travel mm : 4.00 Rated speed rpm : 1165
travel mm : 3.59 Tolerance mm : +- 0.25	+ Tolerance 1/min : +- 15 + rack travel mm : 0.50
Rated speed rpm : 520	Tolerance mm : + 0.50 Rated speed rpm : 1250

		† Tolerance mm : +- 0.05
LOW IDLE		<u> </u>
control lever position degree tolerance degree control lever position degree tolerance degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. Rated speed rpm	: + 4.0 : 10.0 : + 4.0 : 325 : 3.80 : + 0.30 : 225 : > 5.40	FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : - Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 188.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 BREAKAWAY Rack travel in mm : 8.30 Rated speed rpm : 1105 Tolerance 1/min : + 5
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm	: 9.30	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 150.0 Tolerance cm3/1000 strokes : + 15.0 Check tolerance cm3/1000s. : + 19.0
Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm rack travel mm Tolerance mm Rated speed rpm Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm Tolerance mm	: 1500 : 9.30 : + 0.05 : - 0.05 : 500 : 7.80 : + 0.10 : 500 : 520 : 1.30 : + 0.20 : 290 : 0.25	LOW IDLE Rated speed rpm : 325 rack travel mm : 3.80 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 23.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 8.0

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 17.01.96 Edition Test oil : ISO 4113

Combination No. : 0 402 846 070

Injection pump

Pump designation : PE6P12OA32ORS8040 EP type number : 0 412 826 034

Governor

Governer design. : RQV300...1050PA1247 Governer no. : 0 421 814 163

Cust, part No. : 11031221~P03v.01.96

Customer-spec. information Customer : VME

: TD 103 KCE Motor Power KW : 186.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

min. L/h : 165 Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

bar : 208.5 : +- 1.5 Tolerance bar

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

26.0 Test pressure bar: Tolerance bar : +- 1.0

Prestroke mm : 4.00 Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 12.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-: 4

: 0-60-120-180-240 Phasing

: -300 : + - 0.30Tolerance

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 500

Rack travel in mm: 11.80 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 318.0

Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: + 4.0
Spreed Tolerance cm3/1000 strokes	: 8.0
Check tolerance cm3/1000s.	: 11.0
Rated speed rpm	; 320
Rack travel in mm Tolerance mm	: 5.20 : + 0.30
Del. quantity	. 1 0.30
cm3/1000 strokes Tolerance	: 50.0
cm3/1000 strokes Check tolerance	: +- 2.5
cm3/1000s. Spreed	: ← 5.0
Tolerance cm3/1000 strokes	: 5.0
Check tolerance	
cm3/1000s.	: 8.0
WITH GOVERNOR GUIDE SLEEVE TRAV	EL.
Rated speed rpm	
guide sleeve	. 323
travel mm	: 1.34
Tolerance mm	: +- 0.20
Rated speed rpm guide sleeve	: 1112
travel mm	: 7.91
Tolerance mm	: +- 0.15
Rated speed rpm	: 806
guide sleeve travel mm	: 5.20
Tolerance mm	: + 0.25
Rated speed rpm	: 530
guide sleeve	
	: 530 : 3.11 : + 0.25
guide sleeve travel mm Tolerance mm Rated speed rpm	: 3.11
guide sleeve travel mm Tolerance mm	: 3.11 : + 0.25

Tolerance mm	: +- 0.50
GUIDE SLEEVE POSI	TION
Rated speed rpm	: 1220
Rack travel in mm Tolerance mm	1: 11.00 : +- 2.00
FULL LOAD DELIVER	RY AT FULL LOAD STOP
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
CONTROL LEVER	
control lever position degree tolerance degree	: 45.0 : +- 4.0
control lever position degree tolerance degree	
RATED SPEED	
rack travel mm Rated speed rpm Tolerance 1/min	: 9.60 : 1090 : +- 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1170 : + 15
rack travel mm Tolerance mm Rated speed rpm	: 0.50 : + 0.50 : 1250
LOW IDLE	

control lever position degree tolerance degree	: 84.0 : +- 4.0	Pressure hPa : 230 rack travel mm : 0.25 Tolerance mm : + 0.05
control lever position degree tolerance degree		FUEL DELIVERY CHARACTERISTICS
Testing:		+
Rated speed rpm rack travel mm Tolerance mm	: 320 : 5.20 : +- 0.10	+ Aneroid pressure + hPa : 1500 + Rated speed rpm : 1050 + Del. quantity + cm3/1000 strokes : 218.0
Rated speed rpm	: 220	+ Tolerance + cm3/1000 strokes : +- 1.0
CRT mm min.		+ Check tolerance + cm3/1000s. : + 4.0
Rated speed rpm	: 380	+ Aneroid pressure + hPa : -
TORQUE CONTROL		Rated speed rpm : 500 Del. quantity
Rated speed rpm rack travel mm	: 11.80	+ cm3/1000 strokes : 212.0 + Tolerance
Tolerance mm	; +- 0.05	+ cm3/1000 strokes : +- 1.0 + Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 10.60	cm3/1000s. : + 4.0
		BREAKAWAY
Rated speed rpm rack travel mm Tolerance mm	: 720 : 10.90 : + 0.15	Rack travel in mm: 9.60 Rated speed rpm: 1090 Tolerance 1/min: +- 5
ANEROID/ALTITUDE COMPENSATOR TEST		Toterance in min.
SETTING		
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 11.80 : +- 0.05	LOW IDLE Rated speed rpm : 320 rack travel mm : 5.20
MEASUREMENT		Tolerance mm : + 0.30 Del. quantity
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 8.70 : + 0.10	+ cm3/1000 strokes : 50.0 + Tolerance - cm3/1000 strokes : + 2.5 - Check tolerance - cm3/1000s. : + 5.0
Rated speed rpm	: 500	Spreed Tolerance
Pressure hPa	: 900	+ cm3/1000 strokes : 5.0 + Check tolerance
rack travel mm Tolerance mm	: 2.80 : + 0.20	+ cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.01.96 Test oil : ISO 4113

Combination No. : 0 402 846 071

Injection pump

Pump designation : PE6P12OA32ORS8040 EP type number : 0 412 862 034

Governor

Governer design. : RQV300...1100PA1248 Governer no. : 0 421 814 165

Cust. part No. : 11031229 : -P03 v.12.95

Customer-spec. information Customer : VME

Motor : TD 103 KBE
Power KW : 214.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

2

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.00
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 12.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 11.00

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 270.0

Tolerance cm3/1000 strokes : +- 1.0

H26

Check tolerance cm3/1000s.	: +- 4.0	Rated speed rpm : 1240
Spreed Tolerance cm3/1000 strokes	: 8.0	Rack travel in mm: 11.00 Tolerance mm: + 1.50
Check tolerance cm3/1000s.	: 11.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm	: 330	Rated speed rpm : 700 Aneroid pressure
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: +- 0.30	hPa : 1500 Del. quantity cm3/1000 strokes : 270.0 Tolerance cm3/1000 strokes : + 1.0
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + 2.5 : + 5.0	Check tolerance cm3/1000S. : + 4.0 Spreed Tolerance
Spreed Tolerance cm3/1000 strokes		- cm3/1000 strokes : 8.0 - Check tolerance - cm3/1000s. : 11.0
Check tolerance cm3/1000s.	: 8.0	+
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	+ CONTROL LEVER + control lever + position degree : 56.0 - tolerance degree : + 4.0
GUIDE SLEEVE TRAV	EL	t control lever
Rated speed rpm guide sleeve travel mm	: 330 : 2.10	position degree : 117.0 tolerance degree : +- 4.0
Tolerance mm	: +- 0.20	RATED SPEED
Rated speed rpm guide sleeve travel mm Tolerance mm		rack travel mm : 10.00 Rated speed rpm : 1130 Tolerance 1/min : + 5
Rated speed rpm	: 1077	rack travel mm : 4.00 Rated speed rpm : 1200 Tolerance 1/min : + 15
guide sleeve travel mm Tolerance mm Rated speed rpm	: 520	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1275
guide sleeve travel mm Tolerance mm	: 4.67	<u> </u>
Rated speed rpm		LOW IDLE
guide sleeve	44.50	+
guide sleeve travel mm Tolerance mm	: + 0.50	control lever position degree : 66.0 tolerance degree : + 4.0
GUIDE SLEEVE POSIT	FION	+

control lever 11.0 position degree : tolerance degree : +-4.0 Testing: 330 Rated speed rpm 4.20 rack travel mm : +- 0.10Tolerance mm 230 Rated speed rpm CRT mm min. : > 6.00 Rated speed rpm 400 TORQUE CONTROL Rated speed rom 700 rack travel mm 11.00 : Tolerance mm : + - 0.05ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm 500 1500 Pressure hPa 11.00 rack travel mm : + 0.05Tolerance mm **MEASUREMENT** Pressure hPa 500 Rated speed rpm 8.60 rack travel mm : + 0.10Tolerance mm Rated speed rom 500 540 Pressure hPa 2.00 rack travel mm Tolerance mm : + 0.20240 Pressure hPa 0.25 rack travel mm Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 202.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. : +-4.0 BREAKAWAY Rack travel in mm : 10.00 1130 Rated speed rpm : Tolerance 1/min : +-LOW IDLE Rated speed rpm 330 4.20 rack travel mm : **←** 0.30 Tolerance mm Del. quantity cm3/1000 strokes : 29.0 Tolerance cm3/1000 strokes 2.5 : +--Check tolerance cm3/1000s. : +-5.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. 8.0 End of test specification sheet

700

Rated speed rpm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa

H28

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.01.96 Test oil : ISO 4113

Combination No. : 0 402 846 300

Injection pump

Pump designation : PE6P12OA32ORS8504 EP type number : 0 412 816 200

Governor

Governer design. : RQV275...1000PA1099K Governer no. : 0 421 815 983

Cust. part No. : 1287579/4

Customer-spec. information
Customer : DAF
Motor : WS 315 M

Motor : WS 315 M Power KW : 315.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 180

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.35
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance $^{\circ}NW$: + 0.50

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 980

Rack travel in mm : 13.35 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 321.5

Tolerance cm3/1000 strokes	• + 10	+ Rated speed rpm : 400
CIIDA 1000 SELOKES		guide sleeve
Check tolerance cm3/1000s.	: +- 6.0	travel mm : 3.92 Tolerance mm : + 0.25
Spreed Tolerance		Rated speed rpm : 1310 guide sleeve
cm3/1000 strokes Check tolerance	: 8.0	travel mm : 13.50 Tolerance mm : +- 0.50
cm3/1000s.	: 14.0	GUIDE SLEEVE POSITION
Rated speed rpm	: 275	Rated speed rpm : 1130
Rack travel in mm	`	+
Tolerance mm Del. quantity	: ← 0.10	Rack travel in mm : 12.70 Tolerance mm : +- 1.30
cm3/1000 strokes Tolerance	: 13.0	- Toter arice many 1:30
cm3/1000 strokes Check tolerance	: +- 3.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. Spreed	: +- 6.0	Rated speed rpm : 980 Aneroid pressure
Tolerance cm3/1000 strokes	: 8.0	hPa : - Del. quantity
Check tolerance	•	cm3/1000 strokes : 321.5
cm3/1000s.	: 14.0	Tolerance : + 1.0
	-	- Check tolerance
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP -	cm3/1000s. : +- 6.0 Spreed
WITH GOVERNOR		- Spreed - Tolerance - cm3/1000 strokes : 8.0
		- Spreed - Tolerance
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve	: 250	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance
GUIDE SLEEVE TRAV	EL -	- Spreed - Tolerance - cm3/1000 strokes : 8.0 - Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm	EL - 250	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000S. : 14.0 CONTROL LEVER control lever
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 250 - : 1.53 - : + 0.15 - :	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000S. : 14.0 CONTROL LEVER control lever position degree : 120.0
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 250 : 1.53 : +- 0.15	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000S. : 14.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : +- 4.0
WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	EL : 250 : 1.53 : +- 0.15 : 1050 : 9.89	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : +- 4.0 RATED SPEED
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 250 : 1.53 : + 0.15 : 1050 : 9.89 : + 0.20 : 692 : 6.45	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 250 : 1.53 : + 0.15 : 1050 : 9.89 : + 0.20 : 692	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 12.35
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	EL : 250 : 1.53 : + 0.15 : 1050 : 9.89 : + 0.20 : 692 : 6.45	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000S. : 14.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037 Tolerance 1/min : +- 5 rack travel mm : 4.00
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 250 : 1.53 : + 0.15 : 1050 : 9.89 : + 0.20 : 692 : 6.45 : + 0.25 : 284 : 2.27	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000S. : 14.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037 Tolerance 1/min : +- 5
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 250 : 1.53 : + 0.15 : 1050 : 9.89 : + 0.20 : 692 : 6.45 : + 0.25 : 284	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000S. : 14.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1150 Tolerance 1/min : +- 15
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	EL : 250 : 1.53 : + 0.15 : 1050 : 9.89 : + 0.20 : 692 : 6.45 : + 0.25 : 284 : 2.27	Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1150 Tolerance 1/min : +- 15 rack travel mm : 0.70 Tolerance mm : +- 0.70
GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	EL : 250 : 1.53 : + 0.15 : 1050 : 9.89 : + 0.20 : 692 : 6.45 : + 0.25 : 284 : 2.27 : + 0.25	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 12.35 Rated speed rpm : 1037 Tolerance 1/min : +- 5 rack travel mm : 4.00 Rated speed rpm : 1150 Tolerance 1/min : +- 15 rack travel mm : 0.70

LOW IDLE	
control lever position degree tolerance degree	: 76.0 : +- 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 275 : 5.80 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 405 : + 30
Rated speed rpm	: 175
CRT mm min.	: > 8.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 980 : 13.35 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 750 : 12.75 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 12.05 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 500 : 12.00 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 400 : 11.95 : +- 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 980 : 1500 : 13.35 : +- 0.05

Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 750 : 980 : 12.25 : +- 0.05
Rated speed rpm	: 980
Pressure hPa rack travel mm Tolerance mm	: - : 8.90 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 420 : 10.00 : + 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa Rated speed rpm	750
Del. quantity cm3/1000 strokes	: 316.0
Tolerance	
cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s. Spreed	: +- 8.0
Tolerance	
cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 14.0
Aneroid pressure	
hPa Rated speed rpm	: - 600
Del. quantity	
cm3/1000 strokes Tolerance	: 188.0
cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s.	: +- 6.0

BREAKAWAY

Rack travel in mm : 12.35
Rated speed rpm : 1037
Tolerance 1/min : + 5

LOW IDLE

MEASUREMENT

Rated speed rpm rack travel mm Tolerance mm	: : +-	275 5.80 0.10
Del. quantity cm3/1000 strokes	•	13.0
Tolerance	•	13.0
cm3/1000 strokes	; +-	3.0
Check tolerance		
cm3/1000s.	; +-	6.0
Spreed Tolerance		
cm3/1000 strokes	•	8.0
Check tolerance	•	0.0
cm3/1000s.	:	14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.01.96 Test oil : ISO 4113

Combination No. : 0 403 446 231

Injection pump

Pump designation : PES6MW100/720RS1144

EP type number : 0 413 406 138

Governor

Governer design. : RQV300...1400MW48-8 Governer no. : 0 420 083 175

Cust. part No. :

Customer-spec. information
Customer : M8-NFZ
Motor : OM 366 A
Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 715 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm : 3.55
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 10.95
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 75.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

	+	
Check tolerance cm3/1000s.	: 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm	: 300	Rated speed rpm : 1400
Rack travel in m Tolerance mm	n: 8.55 + 0.25	Aneroid pressure hPa : - Del. quantity
Del. quantity cm3/1000 strokes	}	cm3/1000 strokes : 75.0 Tolerance
Tolerance cm3/1000 strokes	: + 2.0	cm3/1000 strokes : +- 1.0 Check tolerance
Check tolerance cm3/1000S. Spreed	: +- 4.5	cm3/1000s. : +- 3.0 Spreed Tolerance
Tolerance cm3/1000 strokes	: 3.5	cm3/1000 strokes : 3.5 Check tolerance
Check tolerance cm3/1000s.	: 5.5	cm3/1000s. : 6.0
(2) 0577110 05 71	+	CONTROL LEUED
(B) SETTING OF IN WITH GOVERNOR	MIECITON DOWN	CONTROL LEVER control lever
		position degree : 111.0
GUIDE SLEEVE TRAV	/EL	tolerance degree : +- 4.0
Rated speed rpm guide sleeve	: 300	RATED SPEED
travel mm	: 1.22	rack travel mm : 9.90
Tolerance mm	: + 0.20	Rated speed rpm : 1445 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve	: 1453	rack travel mm : 4.00
travel mm Tolerance mm	: 8.30 : + 0.15	Rated speed rpm : 1550 Tolerance 1/min : +- 15
Rated speed rpm guide sleeve	: 594	rack travel mm : 0.50 Tolerance mm : + 0.50
travel mm Tolerance mm	: 3.30 : +- 0.25	Rated speed rpm : 1650
Rated speed rpm	: 400	
guide sleeve travel mm	: 2.30	LOW IDLE
Tolerance mm	: + 0.25 : 1770	control lever
Rated speed rpm guide sleeve travel mm	: 11.50	position degree : 81.0 tolerance degree : +- 4.0
Tolerance mm	: + 0.50	Testing:
GUIDE SLEEVE POSI	TION	Rated speed rpm : 300 rack travel mm : 8.55
Rated speed rpm	: 1500	Tolerance mm : +- 0.25
Rack travel in mm		Rated speed rpm : 200
Tolerance mm	: +- 2.70	CRT mm min. :> 9.50

TORQUE CONTROL

Rated speed rpm	:	1400
rack travel mm	:	10.95
Tolerance mm	:	→ 0.05

Rated speed rpm	:	750
rack travel mm	:	12.20
Tolerance mm	: +	- 0.10

Rated speed rpm	:	950
rack travel mm	:	11.95
Tolerance mm	: +	- 0.15

Rated speed rpm	:	1200
rack travel mm	:	11.15
Tolerance mm	: •	+ − 0.15

START CUT-OUT

Rated	speed	rpm	: >	100
Rated	speed	rpm	: <	200

Check

speed 1/min Check	: >	80
speed 1/min	• <	230

FUEL DELIVERY CHARACTERISTICS

Aneroid	pressure
	(F. G

THICK OT A PLOCUE C		
hPa	:	-
Rated speed rpm	:	750
Del. quantity		
cm3/1000 strokes	:	76.5
Tolerance		
cm3/1000 strokes	: +	- 1.5
Check tolerance		
cm3/1000s.	: +-	- 4.0

Spreed

Tolerance cm3/1000 strokes : 5.0

Check tolerance cm3/1000s.

m3/1000s. : 7.0

BREAKAWAY

Rack travel in mm: 9.90
Rated speed rpm: 1445
Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm	:	100
rack travel mm	:	19.50
Tolerance mm	: +-	1.50
Del. quantity		
cm3/1000 strokes	:	85.0
Tolerance		
cm3/1000 strokes	: +-	5.0
Check tolerance		
cm3/1000s.	: +-	8.0

LOW IDLE

Rated speed rpm	:	300
rack travel mm	:	8.55
Tolerance mm	: +-	0.25
Del. quantity		
cm3/1000 strokes	:	11.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 31.01.96 Test oil : ISO 4113

Combination No. : 0 400 074 090

Injection pump

Pump designation : PES4M55C32ORS175 EP type number : 0 410 054 957

Governor

Governer design. : RSV350...1650M0C353

: -13

Governer no. : 0 420 033 050

Cust. part No. :

Customer—spec. information Customer : MB-NFZ

Motor : 0M601 (2,3L)

Power KW : 50.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 469 990 351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1 688 901 111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.05
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Rated speed rpm : 1630

Rack travel in mm : 11.85
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 39.5

Tolerance cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s. : +- 1.5

Spreed Tolerance

cm3/1000 strokes : 2.5

Check tolerance cm3/1000s. : 3.0

Rated speed rpm : 350 Del. quantity

cm3/1000 strokes : 7.0

Tolerance cm3/1000 strokes : +- 1.0

J08

Spreed Tolerance cm3/1000 strokes : 1.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION Rated speed rpm : 800 Rack travel in mm : 0.65Tolerance mm : +-0.35 FULL LOAD DELIVERY AT FULL LOAD STOP 1630 Rated speed rpm Ref. pressure ALDA / ADA hPa Del. quantity cm3/1000 strokes : 39.5 Tolerance cm3/1000 strokes : +-Check tolerance cm3/1000s. : +-1.5 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance 3.0 cm3/1000s.RATED SPEED control lever 106.0 position degree : rack travel mm 1.00 Tolerance mm - 0.70 2000 Rated speed rpm LOW IDLE control lever position degree 70.0 tolerance degree : +-4.0 SET IDLE AUXILIARY SPRING Rated speed rpm 350

5.40

: +- 0.10

Load pick-up 100 Rated speed rpm 20.10 CRT mm min. : > 5.40 rack travel mm Rated speed rpm 350 SET IDLE AUXILIARY SPRING Rated speed rpm : 100 TORQUE CONTROL 1630 Rated speed rpm rack travel mm 11.85 : + 0.05Tolerance mm 1000 Rated speed rpm : 11.80 rack travel mm Tolerance mm : + - 0.10FUEL DELIVERY CHARACTERISTICS Ref. pressure ALDA / ADA hPa Rated speed rpm 1000 Del. quantity 38.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. : +-2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. 3.0 STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.10
Del. quantity
cm3/1000 strokes : 54.0
Spreed
Tolerance
cm3/1000 strokes : 6.0
Check tolerance
cm3/1000s. : 6.0

rack travel mm

Tolerance mm

LOW IDLE 350 Rated speed rpm rack travel mm 5.60 Tolerance mm 0.30 Del. quantity cm3/1000 strokes : 7.8 Check tolerance cm3/1000s. 2.3 Spreed Check tolerance cm3/1000s. 1.5 SETTING PNEUMATIC FAST IDLE (ELA) control lever 70.0 position degree tolerance degree : +-4.0 SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR) control lever position degree 70.0 tolerance degree : + 4.0 control lever position degree : 106.0 **ADJUSTMENT** control lever position degree : 106.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 31.01.96 Test oil : ISO 4113

Combination No. : 0 401 846 958

Injection pump

Pump designation : PE6P12OA72ORS3291 EP type number : 0 411 826 800

Governor

Governer design. : RQV300...1000PA1016 Governer no. : 0 421 813 964

Cust. part No.

Customer-spec. information

Customer : IVECO-UNIC Motor : 8210.22.521

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.55
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 : +- 0.30

Tolerance : + 0.30 Check

tolerance *NW : + 0.50

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 11.05
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 226.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance

cm3/1000 strokes : 5.0

	+	
Check tolerance cm3/1000s.	: 9.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm	: 300	Rated speed rpm : 1000 Aneroid pressure
Rack travel in mm Tolerance mm	: > 4.00 : +- 0.20	hPa : 700 Del. quantity
Del. quantity cm3/1000 strokes	+	cm3/1000 strokes : 226.0 Tolerance
Tolerance cm3/1000 strokes	: +- 3.0	cm3/1000 strokes : +- 1.0 Check tolerance
Check tolerance cm3/1000s.	: +- 6.0	cm3/1000s. : +- 4.0 Spreed
Spreed Tolerance cm3/1000 strokes	: 8.0	Tolerance cm3/1000 strokes : 5.0 Check tolerance
Check tolerance cm3/1000s.	: 12.0	cm3/1000s. : 9.0
	‡	
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP +	CONTROL LEVER
	<u> </u>	control lever position degree : 116.0
GUIDE SLEEVE TRAV	}	tolerance degree : +- 4.0
Rated speed rpm guide sleeve	: 300	RATED SPEED
travel mm Tolerance mm	: 1.34 : + 0.20	rack travel mm : 10.00 Rated speed rpm : 1045 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve	: 1059	rack travel mm : 4.00
travel mm Tolerance mm	: 8.50 : + 0.15	Rated speed rpm : 1140 Tolerance 1/min : + 15
Rated speed rpm guide sleeve	; 712	rack travel mm : 0.50 Tolerance mm : +- 0.50
travel mm Tolerance mm	: 5.48 : + 0.25	Rated speed rpm : 1250
Rated speed rpm guide sleeve	: 440	LOW IDLE
travel mm Tolerance mm	: 3.44 : + 0.25	EOW IDEC
Rated speed rpm	: 1270	control lever position degree : 65.0
guide sleeve travel mm	: 11.50	tolerance degree : +- 4.0
Tolerance mm	: ← 0.50	Testing:
GUIDE SLEEVE POSIT	TION I	Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : +- 0.10
Rated speed rpm	: 1130	Rated speed rpm : 100
Rack travel in mm Tolerance mm		CRT mm min. :> 6.00
	+	

Rated speed rpm 360 Check tolerance cm3/1000s.: +-4.0 TORQUE CONTROL BREAKAWAY 1000 Rated speed rpm rack travel mm 11.05 Tolerance mm Rack travel in mm : : +- 0.05 10.00 Rated speed rpm 1045 500 Rated speed rpm Tolerance 1/min rack travel mm 11.10 Tolerance mm : + - 0.10STARTING FUEL DELIVERY ANEROID/ALTITUDE COMPENSATOR TEST Rated speed rpm 100 Del. quantity 250.0 cm3/1000 strokes : SETTING Tolerance cm3/1000 strokes : + 10.0500 Rated speed rpm Check tolerance 700 cm3/1000s. Pressure hPa : +- 14.0 11.05 rack travel mm : **←** 0.05 Tolerance mm **MEASUREMENT** LOW IDLE Rated speed rpm 500 Rated speed rpm 300 Pressure hPa 180 rack travel mm : > 4.00 : 9.35 Tolerance mm 0.20 rack travel mm : + 0.15Del. quantity Tolerance mm cm3/1000 strokes : 22.0 Pressure hPa 220 Tolerance rack travel mm 10.35 cm3/1000 strokes : +-3.0 : + 0.05 Check tolerance Tolerance mm cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 FUEL DELIVERY CHARACTERISTICS Check tolerance cm3/1000s. 12.0 Aneroid pressure 700 hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 226.0 Tolerance cm3/1000 strokes 2.0 End of test specification sheet Check tolerance 5.0 cm3/1000s. Aneroid pressure hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 156.0 Tolerance

cm3/1000 strokes : +-

1.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 31.01.96 : ISO 4113 Test oil

Combination No. : 0 401 876 747

Injection pump

Pump designation : PE6P110A320RS3162 EP type number : 0 411 816 748

Governor

Governer design. : RSV200...900P1/421 : 0 421 833 132 Governer no.

: 849194 P03 v. 6/95 Cust. part No.

Customer-spec. information

Customer : VOLVO-PENTA : TMD 100 C Motor Power KW : 177.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Vibration

damper

(RoBo diaphragm) : 4.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar : +- 1.5 Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 3.55 Tolerance mm : + - 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.50

Start of delivery mark

: + - 0.50Tolerance

Check

tolerance °NW : + - 0.75

Barrel no. : 1

BASIC SETTING

700 Rated speed rpm

Rack travel in mm: 12.25 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 154.0	Check tolerance cm3/1000s. : +- 4.0 Spreed
Tolerance cm3/1000 strokes : + 1.0	Tolerance cm3/1000 strokes : 4.0 Check tolerance
Check tolerance cm3/1000s. : +- 4.0	cm3/1000s. : 7.5
Spreed Tolerance cm3/1000 strokes : 4.0	CONTROL LEVER
Check tolerance cm3/1000s. : 7.5	position degree : 96.0 tolerance degree : +- 4.0
Rated speed rpm : 250	control lever position degree : 46.0
Rack travel in mm: 6.70 + Tolerance mm: + 0.20 + Del. quantity +	tolerance degree : +- 4.0 RATED SPEED
cm3/1000 strokes : 20.0 + Tolerance +	rack travel mm : 11.20
cm3/1000 strokes : + 2.0 + Check tolerance cm3/1000s. : + 4.5	Rated speed rpm : 945 Tolerance 1/min : +- 5
Spreed + Tolerance +	rack travel mm : 4.00 Rated speed rpm : 985
cm3/1000 strokes : 3.0 + Check tolerance +	Tolerance 1/min : + 15
cm3/1000s. : 6.0 +	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1140
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	natea opeca i piii i i i i i i i i
+	LOW IDLE
GUIDE SLEEVE POSITION	control lever
Rated speed rpm : 800	position degree : 19.0 tolerance degree : +- 4.0
Rack travel in mm: 0.50 Tolerance mm: + 0.20 governor spring	<pre>control lever position degree : 69.0 tolerance degree : +- 4.0</pre>
pre-tension + click setting x : 4.00	Setting point w/out bumper spring
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 250 rack travel mm : 6.20
Rated speed rpm : 700 + Aneroid pressure	Testing:
hPa : - +	Rated speed rpm : 250 rack travel mm : 6.70
Del. quantity cm3/1000 strokes : 154.0	Tolerance mm : +- 0.10
cm3/1000 strokes : +- 1.0	rack travel mm : 2.00 Rated speed rpm : 360

Tolerance 1/min : +-30

TORQUE CONTROL

700 Rated speed rpm 12.25 rack travel mm Tolerance mm : +- 0.05

BREAKAWAY

11.20 Rack travel in mm: Rated speed rpm : 945 Tolerance 1/min : +-

STARTING FUEL DELIVERY

100 Rated speed rpm rack travel mm 20.50 Tolerance mm : +- 0.50 Del. quantity cm3/1000 strokes :

Tolerance cm3/1000 strokes : + 10.0

150.0

20.0

Check tolerance

cm3/1000s.: + 10.0

LOW IDLE

250 Rated speed rpm 6.70 rack travel mm 0.20 Tolerance mm Del. quantity cm3/1000 strokes :

Tolerance cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.5 Spreed

Tolerance

3.0 cm3/1000 strokes :

Check tolerance cm3/1000s.

6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.D1.96 Test oil : ISO 4113

Combination No. : 0 401 876 811

Injection pump

Pump designation : PE6P120A320RS3313 EP type number : 0 411 826 807

Governor

Governer design. : RSV350...1050P8A558

: -4

Governer no. : 0 421 833 516

Cust. part No. : 1379584

Customer—spec. information Customer : SCANIA Motor : DSC943A

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration

damper

(RoBo diaphragm) : 4.2

Test oil inlet

temp. *C : 40
Tolerance *C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05
Check

CHECK

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

- 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.50

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

1	Nala and a 124
Rack travel in mm : 12.75	Del. quantity cm3/1000 strokes : 174.0
Tolerance mm : +- 0.05	Tolerance
	cm3/1000 strokes : +- 1.0
Del. quantity +	Check tolerance
cm3/1000 strokes : 174.0 +	cm3/1000s. : +- 4.0
Talanana	Spreed
Tolerance + 1.0 +	Tolerance cm3/1000 strokes : 8.0
cms/ todo strokes : += 1.0	Check tolerance
Check tolerance	cm3/1000s. : 12.0
cm3/1000s. : + 4.0	
Spreed	CONTROL I FUED
Tolerance + cm3/1000 strokes : 8.0 +	CONTROL LEVER
CIIDA LOGIO SELORES . O.D	control lever
Check tolerance	position degree : 58.0
cm3/1000s. : 12.0	tolerance degree : +- 4.0
+	
Rated speed rpm : 350 +	control lever
+	position degree : 108.0
Rack travel in mm: 5.10	tolerance degree : +- 4.0
Tolerance mm : +- 0.30 +	DATEN COFFE
Del. quantity + cm3/1000 strokes : 18.0 +	RATED SPEED
Tolerance	rack travel mm : 11.00
cm3/1000 strokes : +- 3.0 +	Rated speed rpm : 1095
Check tolerance	Tolerance 1/min : + 5
cm3/1000s. : +- 6.0	
Spreed	rack travel mm : 4.00
Tolerance +	Rated speed rpm : 1165
cm3/1000 strokes : 4.0 +	Tolerance 1/min : + 15
Check tolerance	
cm3/1000s. : 8.0 +	rack travel mm : 0.85
†	Tolerance mm : +- 0.55 Rated speed rpm : 1300
(B) SETTING OF INJECTION PUMP	kated speed rpill . 1500
WITH GOVERNOR	
+	
+	LOW IDLE
CUITAGE OF CENTE DOCUTION	
GUIDE SLEEVE POSITION	control lever
Rated speed rpm : 800	position degree : 77.0
Traced opeca i pin	tolerance degree : + 4.0
Rack travel in mm: 0.50	
Tolerance mm : + 0.20	control lever
+	position degree : 28.0
governor spring +	tolerance degree : +- 4.0
pre-tension +	
click setting $x : 6.00$	Setting point w/out bumper spring
†	Rated speed rpm : 350
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 350 rack travel mm : 4.60
TOLL LONG VELLIVERS AT TOLL FOUND STOP	I GON GI GYCC HAIL . T. UU
Rated speed rpm : 700	Testing:
Aneroid pressure	_
hPa : -	Rated speed rpm : 350
†	rack travel mm : 5.10

Tolerance mm	: +- 0.10	+	Aneroid pressure hPa	•
rack travel mm	: 2.00	Ŧ	Rated speed rpm	: 1050
Rated speed rpm Tolerance 1/min	: +- 30	Ŧ	Del. quantity cm3/1000 strokes	: 154.0
		‡	Tolerance cm3/1000 strokes	: +- 4.0
TORQUE CONTROL		+	Check tolerance cm3/1000s.	: +- 6.0
Rated speed rpm	: 700	Ţ		. +- 0.0
rack travel mm Tolerance mm		‡	Aneroid pressure hPa	: -
Rated speed rpm		+	Rated speed rpm Del. quantity	: 500
rack travel mm Tolerance mm	: 12.75	Ŧ	cm3/1000 strokes	: 114.0
Tolerance mm	: +- 0.05	‡	Tolerance cm3/1000 strokes	: +- 1.0
Rated speed rpm	: 900 : 13.45	+	Check tolerance cm3/1000s.	: + 4.0
rack travel mm Tolerance mm	÷ 0.10	Ţ	CIRST 10003.	; - 4. 0
Rated speed rpm	: 975	++	BREAKAWAY	
rack travel mm Tolerance mm	: 13.05 : + 0.15	1		
TO CET AFFICE (INI)	. 1- 6.15	Ŧ	Rack travel in mm	
ANEROID/ALTITUDE			Rated speed rpm Tolerance 1/min	: 1095 : + 5
COMPENSATOR TEST		<u>†</u>		
		Ŧ		
SETTING		‡	STARTING FUEL DEL	IVERY
Rated speed rpm		Ì	Rated speed rpm rack travel mm	: 100 : 10.50
Pressure hPa rack travel mm Tolerance mm	: 12.75	1	Tolerance mm	: + 0.20
Tolerance mm	: +- 0.05	‡	Del. quantity cm3/1000 strokes	: 100.0
MEASUREMENT		Ì	Tolerance cm3/1000 strokes	• +- 20.0
Pressure hPa	: -	Ŧ	Check tolerance	
Rated speed rpm rack travel mm	: 500 : 10.50	‡	cm3/1000s.	: +- 24.0
Tolerance mm	: +- 0.20	+		
Rated speed rpm	: 500	Ŧ	LOUITNE	
Pressure hPa	: 230	‡	LOW IDLE	
rack travel mm Tolerance mm	: 10.95 : + 0.15	1	Rated speed rpm rack travel mm	: 350 : 5.10
		+	Tolerance mm	: + 0.30
Pressure hPa rack travel mm	: 310 : 11.35	‡	Del. quantity cm3/1000 strokes	: 18.0
Tolerance mm	: +- 0.05	‡	Tolerance cm3/1000 strokes	: + 3.0
		+	Check tolerance	
		‡	cm3/1000S. Spreed	: +- 6.0
FUEL DELIVERY CHA	RACTERISTICS	İ	Tolerance cm3/1000 strokes	: 4.0
		1	Canor 1000 of tones	. 7.0

Check tolerance cm3/1000s.	:	8.0	

₹.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.01.96 Test oil : ISO 4113

Combination No. : 0 401 876 812

Injection pump

Pump designation : PE6P12OA32ORS3313 EP type number : 0 411 826 807

Governor

Governer design. : RSV350...1050P8A558

: -5

Governer no. : 0 421 833 517

Cust. part No. : 1379537

Customer—spec. information Customer : SCANIA Motor : DSC943A

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Vibration damper

(RoBo diaphragm) : 4.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05
Check

cneck

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

- 4

Phasing : 0-60-120-180-240

 $\begin{array}{ccc} & : -300 \\ \text{Tolerance} & : + 0.30 \end{array}$

Check

tolerance °NW : + 0.50

Start of delivery mark

Tolerance : + 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

1	No.1
Rack travel in mm: 13.85	Del. quantity cm3/1000 strokes : 204.0
Tolerance mm : + 0.05	Tolerance
+ 300, and and	cm3/1000 strokes : +- 1.0
Del. quantity	Check tolerance
cm3/1000 strokes : 204.0 +	cm3/1000s. : +- 4.0
	Spreed
Tolerance	Tolerance
cm3/1000 strokes : +- 1.0	cm3/1000 strokes : 8.0
Check tolerance	Check tolerance cm3/1000s. : 12.0
cm3/1000s, : +- 4.0	CIII 7 (0003
Spreed	
Tolerance	CONTROL LEVER
cm3/1000 strokes : 8.0	control lover
Check tolerance	control lever position degree : 62.0
cm3/1000s. : 12.0	tolerance degree : +- 4.0
. 12.0	totorance acgives 4.0
Rated speed rpm : 350 +	control lever
+	position degree : 112.0
Rack travel in mm: 5.10 +	tolerance degree : +- 4.0
Tolerance mm : + 0.30	DATES OFFER
Del. quantity + cm3/1000 strokes : 18.0 +	RATED SPEED
Tolerance	rack travel mm : 11.70
cm3/1000 strokes : + 3.0	Rated speed rpm : 1095
Check tolerance +	Tolerance 1/min : + 5
cm3/1000s. : + 6.0 +	
Spreed	rack travel mm : 4.00
Tolerance + cm3/1000 strokes : 4.0 +	Rated speed rpm : 1175
cm3/1000 strokes : 4.0 +	rack travel mm : 0.85
cm3/1000s. : 8.0 +	Tolerance mm : + 0.55
+	Rated speed rpm : 1300
+	
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	LOW IDLE
$oxed{1}$	EOW IDEE
GUIDE SLEEVE POSITION	control lever
Potent aread area a con	position degree : 77.0
Rated speed rpm : 800	tolerance degree : +- 4.0
Rack travel in mm: 0.50	control lever
Tolerance mm : + 0.20 +	position degree : 28.0
+	tolerance degree : +- 4.0
governor spring +	
pre-tension +	Setting point w/out bumper spring
click setting x : 6.00	Rated speed rpm : 350
	Rated speed rpm : 350 rack travel mm : 4.60
FULL LOAD DELIVERY AT FULL LOAD STOP	TOO CLUYCE HAN 1 TIOU
+	Testing:
Rated speed rpm : 700	
Aneroid pressure +	Rated speed rpm : 350
hPa : - +	rack travel mm : 5.10 Tolerance mm : +- 0.10
†	Tolerance mm : +- 0.10

TORQUE CONTROL		
Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.85 : + 0.05	
Rated speed rpm rack travel mm Tolerance mm	: 1050 : 12.75 : + 0.05	
Rated speed rpm rack travel mm Tolerance mm	: 900 : 13.45 : ← 0.20	
Rated speed rpm rack travel mm Tolerance mm	: 975 : 13.05 : +- 0.25	
ANEROID/ALTITUDE COMPENSATOR TEST		
SETTING		
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 13.85 : +- 0.05	
MEASUREMENT		
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 10.50 : + 0.20	
Rated speed rpm	: 500	
Pressure hPa rack travel mm Tolerance mm	: 230 : 10.95 : ← 0.15	
Pressure hPa rack travel mm Tolerance mm	: 310 : 11.35 : + 0.05	
FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure hPa	: -	

+	Tolerance	
+	cm3/1000 strokes	: +- 4.0
+	Check tolerance	
+	cm3/1000s.	: ← 6.0
+		
1	Aneroid pressure	
1	hPa	• -
1	Rated speed rpm	· : 500
Ţ		. 500
T	Del. quantity	. 447 0
T	cm3/1000 strokes	: 114.0
†	Tolerance	
+	cm3/1000 strokes	: + 1.0
+	Check tolerance	
+	cm3/1000s.	: +- 4.0
+		
+		
+	BREAKAWAY	
1		
1		
Ι	Rack travel in mm	: 11.70
T		
†	Rated speed rpm	: 1095
†	Tolerance 1/min	: +- 5
+		
+		
+		
+	STARTING FUEL DELI	IVERY
1		
1	Rated speed rpm	: 100
1	rack travel mm	: 10.50
T	Tolerance mm	: + 0.20
T		. +- 0.20
†	Del. quantity	100.0
†	cm3/1000 strokes	: 100.0
+	Tolerance	
+	cm3/1000 strokes	: +- 20.0
+	Check tolerance	
+	cm3/1000s.	: +- 24.0
1		
1		
1		
1	· · · · · · · · · · · · · · · · · · ·	
1	LOW IDLE	
Ι	LUM IVEL	
Ţ	Datad anasal num	. 750
T	Rated speed rpm	: 350
†	rack travel mm	5.10
†	Tolerance mm	: +- 0.30
+	Del. quantity	
+	cm3/1000 strokes	: 18.0
+	Tolerance	
1	cm3/1000 strokes	: +- 3.0
+		-
‡	uneck tolerance	
-	Check tolerance	: +- 6.0
‡ <u>†</u>	cm3/1000s.	: +- 6.0
‡ + +	cm3/1000s. Spreed	: +- 6.0
† + + +	cm3/1000S. Spreed Tolerance	
† † † †	cm3/1000s. Spreed Tolerance cm3/1000 strokes	: +- 6.0 : 4.0
† † † † †	cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 4.0
† + + + + +	cm3/1000s. Spreed Tolerance cm3/1000 strokes	
† + + + + + + +	cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 4.0
+ + + + + + + + + + + + + + + + + + + 	cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.07.95 Edition : ISO 4113 Test oil

Combination No. : 0 402 046 865

Injection pump

Pump designation : PES6P120A320LS3321

: -1

: 0 412 026 776 EP type number

Governor

Governer design. : RQ275/950PA1085-1 Governer no. : 0 421 801 761

Cust. part No. : 645 625

Customer—spec. information : RABA Customer

: SIEHE BEMERKUNG Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : +-0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0 x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45 : +- 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 12.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: + 0.30Tolerance

Check

tolerance "NW : + - 0.50

Start of delivery mark

Barrel no. 1

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm : 14.60 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 193.0

Tolerance

cm3/1000 strokes : +- 1.0

J25

Check tolerance cm3/1000s. : + 4.0 Spreed	f guide sleeve travel mm : 11.50 Tolerance mm : +- 0.50
Tolerance cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
CIID/ TODO SCI ORES . 5.0	+
Check tolerance cm3/100Qs. : 9.0	Rated speed rpm : 500
Rated speed rpm : 275	Rack travel in mm : 20.00 Tolerance mm : + 0.80
Rack travel in mm: 5.70 Tolerance mm: + 0.30	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 24.0	Rated speed rpm : 600
Tolerance cm3/1000 strokes : +- 3.0	+ Aneroid pressure + hPa : 900 - Del. quantity
Check tolerance cm3/1000s. : +- 6.0	- cm3/1000 strokes : 193.0 - Tolerance
Spreed Tolerance cm3/1000 strokes : 8.0	+ cm3/1000 strokes : + 1.0 + Check tolerance
Check tolerance cm3/1000s. : 12.0	cm3/1000s. : +- 4.0
CIID/ 10003 12.0	Tolerance cm3/1000 strokes : 5.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Check tolerance cm3/1000s. : 9.0
-	+
GUIDE SLEEVE TRAVEL	
Rated speed rpm : 275	CONTROL LEVER
guide sleeve -	control lever
travel mm : 2.85 - Tolerance mm : + 0.10 -	+ position degree : 37.0 + tolerance degree : + 4.0
•	-
Rated speed rpm : 1003 - guide sleeve -	control lever position degree : 99.0
travel mm : 6.55	tolerance degree : +- 4.0
Tolerance mm : +- 0.10	RATED SPEED
Rated speed rpm : 950 -	rack travel mm : 13.60
guide sleeve - travel mm : 6.00 -	Rated speed rpm : 995
Tolerance mm : + 0.10	Tolerance 1/min : +- 5
Rated speed rpm : 369	rack travel mm : 4.00
guide sleeve	Pated speed rom · 1600
travel mm : 5.24	Rated speed rpm : 1090 Tolerance 1/min : +- 15
travel mm : 5.24 Tolerance mm : +- 0.10	Rated speed rpm : 1090 Tolerance 1/min : +- 15
Travel mm : 5.24 Tolerance mm : + 0.10 Rated speed rpm : 440	Rated speed rpm : 1090 Tolerance 1/min : +- 15 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1200
travel mm : 5.24 Tolerance mm : + 0.10 Rated speed rpm : 440 guide sleeve travel mm : 6.00	Rated speed rpm : 1090 Tolerance 1/min : +- 15 rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1200
travel mm : 5.24 Tolerance mm : + 0.10 Rated speed rpm : 440 guide sleeve travel mm : 6.00 Tolerance mm : + 0.10	Tolerance 1/min : +- 15 rack travel mm : 0.50 Tolerance mm : +- 0.50

control lever position degree tolerance degree	: 75.0 : + 4.0	rack travel mm : 13.80 Tolerance mm : + 0.05
control lever position degree tolerance degree	: 13.0 : +- 4.0	FUEL DELIVERY CHARACTERISTICS
Testing:		+ Aneroid pressure + hPa : 900 + Rated speed rpm : 950
Rated speed rpm rack travel mm Tolerance mm	: 275 : 5.70 : + 0.10	+ Del. quantity + cm3/1000 strokes : 185.0 + Tolerance
rack travel mm	: 2.00	- cm3/1000 strokes : +- 3.0 - Check tolerance
Rated speed rpm Tolerance 1/min	: 355 : + 20	+ cm3/1000s. : +- 6.0 + Aneroid pressure
Rated speed rpm	: 175	hPa : - Rated speed rpm : 500
CRT mm min.	: > 8.30	Del. quantity + cm3/1000 strokes : 114.0 + Tolerance
TORQUE CONTROL		- cm3/1000 strokes : +- 2.0 - Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 14.60	- cm3/1000s. : +- 4.0
Rated speed rpm		BREAKAWAY
rack travel mm Tolerance mm	: 14.60	Rack travel in mm : 13.60 Rated speed rpm : 995 Tolerance 1/min : +- 5
ANEROID/ALTITUDE COMPENSATOR TEST		
SETTING		STARTING FUEL DELIVERY Rated speed rpm : 100
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 14.60 : + 0.05	Del. quantity cm3/1000 strokes : 154.0 Tolerance cm3/1000 strokes : +- 20.0
MEASUREMENT		+ Check tolerance - cm3/1000s. : +- 24.0
Pressure hPa Rated speed rpm rack travel mm	: - : 500 : 12.40	
Tolerance mm	: +- 0.20	+ LOW IDLE
Rated speed rpm	: 500 : 240	+ Rated speed rpm : 275 + rack travel mm : 5.70 + Tolerance mm : + 0.30
Pressure hPa rack travel mm Tolerance mm	: 240 : 13.10 : +- 0.15	Del. quantity cm3/1000 strokes : 24.0
Pressure hPa	: 350	+ Tolerance + cm3/1000 strokes : +- 3.0

Check tolerance cm3/1000s. : +- 6.0 Spreed

Tolerance cm3/1000 strokes : 8.0

Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.01.96 Test oil : ISO 4113

Combination No. : 0 402 640 817

Injection pump

Pump designation : PE12P12OA52OLS7826 EP type number : 0 412 620 817

Governor

Governer design. : RQV350...1150PA870

: -4

Governer no. : 0 421 813 717

Cust. part No. : 0180745402

Customer-spec. information
Customer : MB-NFZ
Motor : OM 444 LA
Power KW : 736.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 1.5

Overflow quantity

min. l/h : 160 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0
x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 20.00 Tolerance mm : + 1.00

Firing order : 12-1-5-9-8

: - 3- 4- 11- 10 : - 2- 6- 7

Phasing : 0-45-60-105-120

: -165-180-225-240 : -285-300-345

Tolerance : +- 0.30

Check

tolerance $^{\circ}NW$: + 0.50

Start of delivery mark

Barrel no. : 12

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 15.30 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 306.0

Tolerance		Tolerance mm : +- 0.25
cm3/1000 strokes	: + 1.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000S.	: +- 4.0	Rated speed rpm : 1275
Spreed Tolerance cm3/1000 strokes	: 6.0	Rack travel in mm : 16.50 Tolerance mm : +- 1.30
Check tolerance cm3/1000s.	: 10.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm	: 350	Rated speed rpm : 1150 Aneroid pressure hPa : 1300
Rack travel in mm Tolerance mm	: 5.60 : + 0.30	Del. quantity cm3/1000 strokes : 306.0
Del. quantity cm3/1000 strokes Tolerance	: 15.0	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes Check tolerance	+	cm3/1000S. : +- 4.0 Spreed
cm3/1000S. Spreed Tolerance	: + 6.0	Tolerance cm3/1000 strokes : 6.0 Check tolerance
cm3/1000 strokes Check tolerance	+	cm3/1000s. : 10.0
cm3/1000s.	: 12.0	CONTROL LEVER
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP	control lever position degree : 117.0
GUIDE SLEEVE TRAVE	L +	
Rated speed rpm guide sleeve travel mm	: 350 : 1.55	tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.30 Rated speed rpm : 1195
Rated speed rpm guide sleeve travel mm Tolerance mm	: 350 : 1.55 : + 0.20	tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.30 Rated speed rpm : 1195 Tolerance 1/min : + 5
Rated speed rpm guide sleeve travel mm Tolerance mm	: 350 : 1.55	tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.30 Rated speed rpm : 1195
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 350 : 1.55 : + 0.20 : 1206 : 8.15 : + 0.15	tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.30 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1285 Tolerance 1/min : + 15 rack travel mm : 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 350 : 1.55 : + 0.20 : 1206 : 8.15 : + 0.15 : 600	tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.30 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1285 Tolerance 1/min : + 15
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 350 : 1.55 : + 0.20 : 1206 : 8.15 : + 0.15 : 600 : 3.55 : + 0.25	RATED SPEED rack travel mm : 14.30 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1285 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1350
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 350 : 1.55 : + 0.20 : 1206 : 8.15 : + 0.15 : 600 : 3.55 : + 0.25	tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.30 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1285 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm	: 350 : 1.55 : + 0.20 : 1206 : 8.15 : + 0.15 : 600 : 3.55 : + 0.25 : 960 : 5.55 : + 0.25	tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.30 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1285 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1350 LOW IDLE control lever position degree : 66.0
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 350 : 1.55 : + 0.20 : 1206 : 8.15 : + 0.15 : 600 : 3.55 : + 0.25 : 960 : 5.55	tolerance degree : + 4.0 RATED SPEED rack travel mm : 14.30 Rated speed rpm : 1195 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1285 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1350 LOW IDLE control lever

Rated speed rpm rack travel mm Tolerance mm	: 5.60	+ Check + speed 1/min : < 330
		FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 250	+ Aneroid pressure
CRT mm min.	: > 7.30	+ hPa : 1300
Rated speed rpm	: 475	+ Rated speed rpm : 750 + Del. quantity
·····		
TORQUE CONTROL		+ cm3/1000 strokes : +- 5.0
Rated speed rpm	: 1150	+ Check tolerance + cm3/1000s. : + 8.0
rack travel mm		Spreed
Tolerance mm		+ Tolerance
		+ cm3/1000 strokes : 10.0
Rated speed rpm		+ Check tolerance
rack travel mm	: 15.40 : +- 0.10	+ cm3/1000s. : 15.0
Tolerance mm	0.10	Aneroid pressure
		hPa : 1300
ANEROID/ALTITUDE		Rated speed rpm : 1150
COMPENSATOR TEST		+ Del. quantity
		+ cm3/1000 strokes : 234.5
		+ Tolerance
SETTING		+ cm3/1000 strokes : + 1.5
Doted speed spm	: 500	+ Check tolerance + cm3/1000s. : +- 4.5
Rated speed rpm Pressure hPa		Spreed 4.3
rack travel mm		Tolerance
Tolerance mm		- cm3/1000 strokes : 10.0
		+ Check tolerance
MEASUREMENT		- cm3/1000s. : 15.0
Pressure hPa	• -	Aneroid pressure
Rated speed rpm	: 500	+ hPa : -
rack travel mm		+ Rated speed rpm : 500
Tolerance mm	: + 0.15	+ Del. quantity
		+ cm3/1000 strokes : 124.0
Rated speed rpm	: 500	† Tolerance
Pressure hPa	: 300	+ cm3/1000 strokes : +- 1.0 + Check tolerance
rack travel mm	: 10.20	+ cm3/1000s. : +- 4.0
Tolerance mm	: +- 0.05	Spreed
TOCCT GITCO TIME	0.05	+ Tolerance
Pressure hPa	: 700	+ cm3/1000 strokes : 10.0
rack travel mm	: 13.80	† Check tolerance
Tolerance mm	: +- 0.15	+ cm3/1000s. : 15.0
		†
START CUT-OUT		BREAKAWAY
Dahad amaad		†
Rated speed rpm Rated speed rpm		Rack travel in mm : 14.3D
varen sheen ubii	. > 310	Rated speed rpm : 1195
Check		Tolerance 1/min : +- 5
speed 1/min	: > 180	Total allow Ithinity
		1

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity

cm3/1000 strokes : 331.0

Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance cm3/1000s.

: + 14.0

LOW IDLE

350 Rated speed rpm 5.60 rack travel mm 0.30 Tolerance mm Del. quantity 15.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance 12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 22.08.95 Test oil : ISO 4113

Combination No. : 0 402 946 017

Injection pump

Pump designation : PE6P120A720RS8039 EP type number : 0 412 926 026

Governor

Governer design. : RQV250...950PA1243

Governer no. : 0 421 814 162

Cust. part No. : 1374808

Customer-spec. information Customer : SCANIA : DSC 11.79 Motor

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

251.5 bar Tolerance bar

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 4.15 : +- 0.05 Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm: 20.50

Tolerance mm : + 0.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300 : + - 0.30Tolerance

Check

tolerance °NW : +- 0.50

Start of delivery blocking

Barrel no.

BASIC SETTING

700 Rated speed rpm :

Rack travel in mm: 11.90 Tolerance mm : **←** 0.05

Del. quantity cm3/1000 strokes : 298.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance cm3/1000s. : +- 4.0

Spreed Tolerance cm3/1000 strokes : 8.0	Rack travel in mm : 10.90 Tolerance mm : +- 1.30
Check tolerance cm3/1000s. : 12.0	FULL LOAD DELIVERY AT FULL LOAD STOP
	Rated speed rpm : 700
	+ Aneroid pressure + hPa : 1500
Rack travel in mm : 5.40 Tolerance mm : +- 0.30	+ Del. quantity + cm3/1000 strokes : 298.0
Del. quantity cm3/1000 strokes : 21.0	+ Tolerance + cm3/1000 strokes : +- 1.0
Tolerance cm3/1000 strokes : +- 3.0	+ Check tolerance + cm3/1000s. : +- 4.0
Check tolerance cm3/1000s. : +- 6.0	Spreed Tolerance
Spreed Tolerance	cm3/1000 strokes : 8.0 Check tolerance
cm3/1000 strokes : 4.0	cm3/1000s. : 12.0
Check tolerance cm3/1000S. : 8.0	-
	CONTROL LEVER
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ control lever
	+ position degree : 51.0 + tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	+
Rated speed rpm : 250	control lever position degree : 115.0
guide sleeve travel mm : 1.02	tolerance degree : +- 4.0
Tolerance mm : + 0.20	+ RATED SPEED
Rated speed rpm : 1008 guide sleeve	rack travel mm : 10.90 Rated speed rpm : 995
travel mm : 8.27 Tolerance mm : +- 0.15	Tolerance 1/min : + 5
	rack travel mm : 4.00
Rated speed rpm : 733 guide sleeve	+ Rated speed rpm : 1125 + Tolerance 1 4 : + 15
travel mm : 6.04 Tolerance mm : +- 0.25	rack travel mm : 0.50
Rated speed rpm : 470	Tolerance mm : + 0.50 Rated speed rpm : 1200
guide sleeve travel mm : 3.78	-
Tolerance mm : +- 0.25	LOW IDLE
Rated speed rpm : 1290 guide sleeve	+
travel mm : 11.50 Tolerance mm : + 0.50	control lever position degree : 81.0
TO LET GITUE (IM) . F= U.JU	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	control lever
Rated speed rpm : 1125	<pre>position degree : 17.0 tolerance degree : + 4.0</pre>

K06

Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 250 : 5.40 : + 0.10
Rated speed rpm	: 150
CRT mm min.	: > 8.10
Rated speed rpm	: 300
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 700 : 11.90 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 950 : 11.90 : + 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 11.90 : ← 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 9.20 : +- 0.20
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 350 : 10.30 : + 0.15
Pressure hPa rack travel mm Tolerance mm	: 600 : 11.40 : + 0.05
START CUT-OUT	
Rated speed rpm Rated speed rpm	: > 100 : < 170

Check speed 1/min Check speed 1/min	: > 80 : < 190
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1500 : 950 : 282.0 : +- 4.0 : +- 6.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - : 500 : 197.0 : + 1.0 : + 4.0
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 10.90 : 995 : +- 5
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm	: 100 : 20.50 : + 0.50
LOW IDLE	
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 250 : 5.40 : + 0.30 : 21.0 : + 3.0 : + 6.0

Tolerance

cm3/1000 strokes : Check tolerance cm3/1000s. : 4.0

8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 29.01.96 Edition Test oil : ISO 4113

Combination No. : 0 403 446 259

Injection pump

Pump designation : PES6MW100/720RS1131

: -1

EP type number : 0 413 406 165

Governor

Governer design. : RQV300...1300MW68-2

: 0 420 083 224 Governer no.

Cust. part No. :

Customer-spec. information Customer : MB-NFZ : 0M366LA Motor : 177.0

Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : **←** 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.65 : + 0.05Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

: +- 0.75 tolerance °NW

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 14.45 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 112.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

: +-3.0 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 3.5

	+	Tolerance mm : +- 0.25
Check tolerance	+	
cm3/1000s.	: 6.0	Rated speed rpm : 1620 guide sleeve
Rated speed rpm	: 300 +	travel mm : 11.50
Rack travel in mm :	. 6.50	Tolerance mm : +- 0.50
Tolerance mm :		
Del. quantity cm3/1000 strokes :	: 12.0	GUIDE SLEEVE POSITION
Tolerance	+	Rated speed rpm : 1450
cm3/1000 strokes : Check tolerance	: ← 2.0 +	Rack travel in mm : 10.00
	: +- 4.5 I	Tolerance mm : +- 2.70
Spreed	+	
Tolerance cm3/1000 strokes :	: 3.5	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	+	4700
cm3/1000s.	5.5	Rated speed rpm : 1300 Aneroid pressure
•-•	+	hPa : 1000
(B) SETTING OF INJE	ECTION PUMP	Del. quantity cm3/1000 strokes : 112.0
MITTI GOVERNOON	+	Tolerance
GUIDE SLEEVE TRAVEL	<u> </u>	cm3/1000 strokes : +- 1.0 Check tolerance
	+	cm3/1000s. : +- 3.0
Rated speed rpm : guide sleeve	300	Spreed Tolerance
travel mm :	0.92	cm3/1000 strokes : 3.5
Tolerance mm :	+ 0.25	Check tolerance cm3/1000s. : 6.0
Rated speed rpm :	1355	cm3/1000S. : 6.0
guide sleeve	+	
travel mm : Tolerance mm :	8.60 + 0.25	CONTROL LEVER
Data dana dana a	22/0	
Rated speed rpm : guide sleeve	2240	control lever position degree : 114.0
travel mm :	24.82	tolerance degree : +- 4.0
Tolerance mm :	+ 0.25	RATED SPEED
Rated speed rpm :	721	
guide sleeve travel mm :	5.69	rack travel mm : 13.40 Rated speed rpm : 1345
	+ 0.25	Tolerance 1/min : +- 5
Rated speed rpm :	771	rack travel mm : 4.00
guide sleeve	+	Rated speed rpm : 1495
travel mm : Tolerance mm :	6.18 + 0.25 +	Tolerance 1/min : +- 15
	+	rack travel mm : 0.50
Rated speed rpm : guide sleeve	1040	Tolerance mm : +- 0.50 Rated speed rpm : 1600
travel mm :	7.10	
Tolerance mm :	+ 0.25	
Rated speed rpm :	1485	LOW IDLE
guide sleeve travel mm :	10.00	
CLOVEL HHI	T	

K10

		1
control lever position degree tolerance degree	: 77.0 : +- 4.0	Check speed 1/min : > 80 Check
Testing:		+ speed 1/min : < 240 +
Rated speed rpm rack travel mm Tolerance mm	: 300 : 6.50 : + 0.10	FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 1000
Rated speed rpm	: 200	Rated speed rpm : 750 Del. quantity
CRT mm min.	: > 8.00	cm3/1000 strokes : 108.0 Tolerance
TORQUE CONTROL		
Rated speed rpm rack travel mm Tolerance mm	: 14.45	- cm3/1000s. : +- 4.0 - Spreed - Tolerance - cm3/1000 strokes : 5.0 - Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 14.45	- cm3/1000s. : 7.0 - Aneroid pressure - hPa : - - Rated speed rpm : 500
ANEROID/ALTITUDE COMPENSATOR TEST		Del. quantity cm3/1000 strokes : 42.0 Tolerance cm3/1000 strokes : +- 1.0
SETTING		+ Check tolerance + cm3/1000s. : + 3.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1000	BREAKAWAY
MEASUREMENT Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 11.00 : + 0.10	Rack travel in mm : 13.40 Rated speed rpm : 1345 Tolerance 1/min : +- 5
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 400 : 13.45 : +- 0.10	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 105.0 Tolerance cm3/1000 strokes : +- 5.0
Pressure hPa rack travel mm Tolerance mm	: 200 : 11.60 : +- 0.10	- cm3/1000 strokes : += 3.0 - check tolerance - cm3/1000s. : += 8.0
START CUT-OUT		LOW IDLE
Rated speed rpm Rated speed rpm		+ Rated speed rpm : 300

rack travel mm	: 6.50	
Tolerance mm	: 0.20	
Del. quantity	40.0	
cm3/1000 strokes	: 12.0	
Tolerance cm3/1000 strokes		
Check tolerance	: +- 2.0	
cm3/1000s.	: +- 4.5	
Spreed	. + 4.5	
Tolerance		
cm3/1000 strokes	: 3.5	
Check tolerance		
cm3/1000s.	: 5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.01.96 Test oil : ISO 4113

Combination No. : 0 403 446 336

Injection pump

Pump designation : PES6MW100/720RS1131

: -1

EP type number : 0 413 406 165

Governor

Governer design. : RQV300...1300MW156

Governer no. : 0 420 083 342

Cust. part No. : 0270740602

Customer-spec. information

Customer : MB-NFZ Motor : OM366LA

Power KW : 170.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.65
Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 14.45
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 112.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance +	
cm3/1000 strokes : 3.5	GUIDE SLEEVE POSITION
Check tolerance cm3/1000S. : 6.0	Rated speed rpm : 1450
Rated speed rpm : 300	Rack travel in mm : 11.00 Tolerance mm : + 2.70
Rack travel in mm: 7.20 + Tolerance mm: + 0.20 +	
Del. quantity + cm3/1000 strokes : 12.0 +	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes : + 2.0	Rated speed rpm : 1300 Aneroid pressure
Check tolerance cm3/1000S. : +- 4.5	hPa : 1000 Del. quantity cm3/1000 strokes : 112.0
Spreed Tolerance cm3/1000 strokes : 3.5	Tolerance : + 1.0
Check tolerance cm3/1000s. : 5.5	Check tolerance cm3/1000s. : + 3.0
	Spreed Tolerance
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	cm3/1000 strokes : 3.5 Check tolerance
GUIDE SLEEVE TRAVEL	cm3/1000s. : 6.0
GOIDE SLEEVE TRAVEL	
Rated speed rpm : 300 + guide sleeve +	CONTROL LEVER
travel mm : 1.69 +	control lever
Tolerance mm : + 0.20	position degree : 123.0 tolerance degree : +- 4.0
Rated speed rpm : 1355 guide sleeve	RATED SPEED
travel mm : 8.41	mode + moved - mo
Tolerance mm : \leftarrow 0.15	rack travel mm : 13.40 Rated speed rpm : 1345
Rated speed rpm : 1070 quide sleeve	Tolerance 1/min : + 5
travel mm : 6.53	rack travel mm : 4.00
Tolerance mm : +- 0.25	Rated speed rpm : 1500 Tolerance 1/min : +- 15
Rated speed rpm : 650 + guide sleeve +	rack travel mm : 0.50
travel mm : 4.94 Tolerance mm : + 0.25	Tolerance mm : +- 0.50 Rated speed rpm : 1600
Rated speed rpm : 1502 + guide sleeve	
travel mm : 10.00 +	LOW IDLE
Tolerance mm : +- 0.25	204 1000
Rated speed rpm : 1630 + guide sieeve +	control lever position degree : 73.0
travel mm : 11.50 + Tolerance mm : + 0.50 +	tolerance degree : +- 4.0
‡	Testing:

Rated speed rpm	: 300	+
rack travel mm Tolerance mm	: 7.20 : + 0.10	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 200	Aneroid pressure hPa : 1000
CRT mm min.	: > 8.50	Rated speed rpm : 750 Del. quantity
TORQUE CONTROL	·	
Rated speed rpm	: 1300	+ cm3/1000 strokes : + 1.5 + Check tolerance
rack travel mm Tolerance mm	: 14.45	+ cm3/1000s. : +- 4.0 + Spreed
Rated speed rpm	: 750	Tolerance cm3/1000 strokes : 5.0
Rated speed rpm rack travel mm Tolerance mm	: + 0.10	+ Check tolerance cm3/1000s. : 7.0
ANEROID/ALTITUDE		Aneroid pressure
COMPENSATOR TEST		Rated speed rpm : 500 Del. quantity
OFFTTNO		+ cm3/1000 strokes : 41.0
SETTING		+ Tolerance + cm3/1000 strokes : +- 1.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1000 : 14.45	+ Check tolerance + cm3/1000s. : +- 3.0
MEASUREMENT	0.05	BREAKAWAY
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 11.00	Rack travel in mm: 13.40 Rated speed rpm: 1345 Tolerance 1/min: + 5
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 400 : 13.40 : +- 0.10	+ Rated speed rpm : 100 + Del. quantity
Pressure hPa	: 200	cm3/1000 strokes : 105.0 Tolerance
rack travel mm Tolerance mm	: 11.60 : + 0.10	cm3/1000 strokes : +- 5.0 Check tolerance cm3/1000s. : +- 8.0
START CUT-OUT		+
Rated speed rpm Rated speed rpm	: > 100 : < 180	LOW IDLE
Check speed 1/min Check	: > 80	Rated speed rpm : 300 rack travel mm : 7.20 Tolerance mm : + 0.20
speed 1/min	: < 200	t Del. quantity cm3/1000 strokes : 12.0

2.0
4.5
3.5
5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.01.96 : ISO 4113 Test oil

Combination No. : 9 400 030 737

Injection pump

Pump designation : PES6A95D32D/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1100A0C850R

Governer no. : 9 420 034 716

Cust. part No. : 3929409

Customer-spec. information Customer : CDC Motor : 6BT Power KW : 90.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar : + 1.5 Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 Check

tolerance mm : + 0.10 Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 Tolerance : **←** 0.50

Check

: +- 0.75 tolerance °NW

Start of delivery blocking

*NW after s.o.d. : 7.50 Tolerance : \leftarrow 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 10.25 Tolerance mm : + 0.05

Del. quantity tm3/1000 strokes : 81.5	Check tolerance cm3/1000s. : 6.5
Tolerance cm3/1000 strokes : + 1.0	CONTROL LEVED
Check tolerance cm3/1000s. : + 3.0	control lever position degree : 97.0
Spreed Tolerance cm3/1000 strokes : 4.0	tolerance degree : + 4.0 RATED SPEED
Check tolerance cm3/1000s. : 6.5	rack travel mm : 9.20 Rated speed rpm : 1165
Del. quantity	Tolerance 1/min : + 5
cm3/1000 strokes : 18.5 Tolerance	rack travel mm : 4.50 Rated speed rpm : 1215
cm3/1000 strokes : + 2.0 + Check tolerance cm3/1000s. : + 4.5	Tolerance 1/min : ← 5 rack travel mm : 0.85
Spreed +	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1300
cm3/1000 strokes : 6.0 Check tolerance	Traces opecs Fp.III 1 Too
cm3/1000s. : 8.0	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 85.5 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
Rated speed rpm : 800	Rated speed rpm : 475 rack travel mm : 4.60
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Testing:
governor spring pre-tension click setting x : 5.00	Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
Rated speed rpm : 1100	CRT mm min. : > 19.00
Aneroid pressure hPa : 900	TORQUE CONTROL
Del. quantity cm3/1000 strokes : 81.5 Tolerance	Rated speed rpm : 1100 rack travel mm : 10.25
cm3/1000 strokes : + 1.0 Check tolerance	Tolerance mm : +- 0.05
cm3/1000s. : +- 3.0 +- Spreed +- Tolerance +-	Rated speed rpm : 800 rack travel mm : 10.90 Tolerance mm : +- 0.10
cm3/1000 strokes : 4.0	

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 800 Pressure hPa 900

MEASUREMENT

Pressure hPa 800 Rated speed rpm rack travel mm 8.70 : + 0.20 Tolerance mm

Rated speed rpm 800

Pressure hPa 450 10.50 rack travel mm Tolerance mm : +- 0.20

Pressure hPa 275 9.50 rack travel mm Tolerance mm : **←** 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

900 hPa 008 Rated speed rpm Del. quantity

cm3/1000 strokes

Tolerance cm3/1000 strokes 2.0

93.0

Check tolerance

cm3/1000s. 4.0

Aneroid pressure

hPa 800

Rated speed rpm

Del. quantity

cm3/1000 strokes : 65.5

Tolerance

cm3/1000 strokes 1.0

Check tolerance

cm3/1000s. 3.0

BREAKAWAY

9.20 Rack travel in mm : Rated speed rpm : +--Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 20.50 Tolerance mm : + - 0.50Del. quantity cm3/1000 strokes : 120.5 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance

: + - 15.0

LOW IDLE

cm3/1000s.

Del. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 29.01.96 Edition Edition : 29.01.96 Test oil : ISO 4113

Combination No. : 9 400 030 738

Injection pump

Pump designation : PES6A95D32D/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1100A0C851R

Governer no. : 9 420 034 717

Cust. part No. : 3929408

Customer-spec. information Customer : CDC : 6BT Motor Power KW : 98.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 7.50 Tolerance : +- 0.50 Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 11.05 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes :	92.5	Check tolerance cm3/1000s. : 6.5
cm3/1000 strokes :	: + 1.0	CONTROL LEVER
Check tolerance cm3/1000s. :	+ 3.0	control lever position degree : 96.0
Spreed Tolerance cm3/1000 strokes :	: 4.0	tolerance degree : +- 4.0 RATED SPEED
Check tolerance cm3/1000s. :	6.5	rack travel mm : 10.00 Rated speed rpm : 1165 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : Tolerance	+	rack travel mm : 4.50 Rated speed rpm : 1215
cm3/1000 strokes : Check tolerance cm3/1000s. :	2.0 + 4.5	Tolerance 1/min : + 5 rack travel mm : 0.85
Spreed Tolerance cm3/1000 strokes :	+	Tolerance mm : +- 0.55 Rated speed rpm : 1300
Check tolerance cm3/1000s. :	8.0	LOW IDLE
(B) SETTING OF INJE WITH GOVERNOR	ECTION PUMP	control lever position degree : 85.5 tolerance degree : + 4.0
GUIDE SLEEVE POSITI	ON	Setting point w/out bumper spring
Rated speed rpm :	+	Rated speed rpm : 475 rack travel mm : 4.60
Rack travel in mm : Tolerance mm :	0.50 +- 0.20	Testing:
governor spring pre-tension click setting x :	5.00	Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : +- 0.10
FULL LOAD DELIVERY	AT FULL LOAD STOP	Rated speed rpm : 100
Rated speed rpm :	1100	CRT mm min. : > 19.00
Aneroid pressure hPa : Del. quantity	900	TORQUE CONTROL
cm3/1000 strokes : Tolerance cm3/1000 strokes :	+	Rated speed rpm : 1100 rack travel mm : 11.05 Tolerance mm : + 0.05
Spreed	+ 3.0	Rated speed rpm : 800 rack travel mm : 11.80
Tolerance cm3/1000 strokes :	4.0	Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 800 Pressure hPa : 900

MEASUREMENT

Pressure hPa : Rated speed rpm : 800
rack travel mm : 8.70
Tolerance mm : +- 0.20

Rated speed rpm : 800

Pressure hPa : 650 rack travel mm : 11.20 Tolerance mm : + 0.20

Pressure hPa : 350 rack travel mm : 9.50 Tolerance mm : + 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 900 Rated speed rpm : 800 Del. quantity

-2/4000 -tu-li-

cm3/1000 strokes : 104.0

Tolerance

cm3/1000s.

cm3/1000 strokes : + 2.0 Check tolerance

4.0

Aneroid pressure

hPa : - Rated speed rpm : 800

Del. quantity

cm3/1000 strokes : 65.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

BREAKAWAY

Rack travel in mm : 10.00
Rated speed rpm : 1165
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 120.5 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 15.0

LOW IDLE

Del. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 29.01.96 Edition : ISO 4113 Test oil

Combination No. : 9 400 030 739

Injection pump

Pump designation : PES6A95D320/3RS2881 EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1250A0C852R

Governer no. : 9 420 034 718

Cust. part No. : 3929403

Customer-spec. information Customer : CDC : 6BT Motor : 114.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

: +- 0.50 Tolerance

Check

: +- 0.75 tolerance °NW

Start of delivery blocking

*NW after s.o.d. : 7.50 Tolerance : \leftarrow 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.75
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 101.5	Check tolerance cm3/1000s. : 6.5
Tolerance + cm3/1000 strokes : + 1.0	
	CONTROL LEVER
Check tolerance cm3/1000s. : + 3.0	control lever position degree : 102.0
Spreed	tolerance degree : + 4.0
Tolerance +	•
cm3/1000 strokes : 4.0	RATED SPEED
Check tolerance cm3/1000s. : 6.5	rack travel mm : 10.70 Rated speed rpm : 1305 Tolerance 1/min : +- 5
Del. quantity	
cm3/1000 strokes : 21.5	rack tra⊎el mm : 4.50
Tolerance	Rated speed rpm : 1375
cm3/1000 strokes : + 2.0 +	Tolerance 1/min : + 5
Check tolerance + 4.5	mode travel mm
cm3/1000s. : +- 4.5 +	rack travel mm : 0.85 Tolerance mm : +- 0.55
Tolerance	Rated speed rpm : 1450
cm3/1000 strokes : 6.0	Nated Speed (pii) . 1430
Check tolerance	
cm3/1000s. : 8.0	
+	LOW IDLE
+	
(B) SETTING OF INJECTION PUMP +	
WITH GOVERNOR +	control lever
†	position degree : 89.0
†	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
+	Setting point w/out bumper spring
GUIDE SLEEVE POSITION Rated speed rpm : 800	Setting point w/out bumper spring Rated speed rpm : 475
+	Setting point w/out bumper spring
Rated speed rpm : 800	Setting point w/out bumper spring Rated speed rpm : 475
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing:
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : +- 0.20 governor spring pre-tension	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : +- 0.20 governor spring pre-tension click setting x : 5.00	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : +- 0.20 governor spring pre-tension	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRI mm min. : > 19.00
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : +- 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRI mm min. : > 19.00
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 101.5	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRI mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : +- 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRI mm min. : > 19.00
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 101.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.75 Tolerance mm : + 0.05
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : +- 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 101.5 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRI mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.75 Tolerance mm : + 0.05 Rated speed rpm : 800
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : +- 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 101.5 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRI mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.75 Tolerance mm : + 0.05 Rated speed rpm : 800 rack travel mm : 12.10
Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : +- 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250 Aneroid pressure hPa : 900 Del. quantity cm3/1000 strokes : 101.5 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 4.60 Testing: Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10 Rated speed rpm : 100 CRI mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.75 Tolerance mm : + 0.05 Rated speed rpm : 800

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 800 Pressure hPa 900

MEASUREMENT

Pressure hPa 008 Rated speed rpm rack travel mm 8.70 Tolerance mm : + 0.20

Rated speed rpm 800

Pressure hPa 600 11.50 rack travel mm Tolerance mm : + 0.20

275 Pressure hPa rack travel mm 9.50 Tolerance mm : +- 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

900 hPa 800 Rated speed rpm Del. quantity

cm3/1000 strokes 107.5

Tolerance

cm3/1000 strokes 2.0 Check tolerance

cm3/1000s. 4.0

Aneroid pressure

hPa

800 Rated speed rpm

Del. quantity cm3/1000 strokes

65.5 Tolerance

1.0 cm3/1000 strokes

Check tolerance

cm3/1000s. 3.0 : +--

BREAKAWAY

10.70 Rack travel in mm : Rated speed rpm : 1305 Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 20.50 rack travel mm Tolerance mm : +- 0.50Del. quantity cm3/1000 strokes : 120.5 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 15.0

LOW IDLE

Del. quantity cm3/1000 strokes : 21.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s.4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.01.96 Test oil : ISO 4113

Combination No. : 0 400 836 019

Injection pump

Pump designation : PES6A80D410/3RS2527

EP type number : 0 410 886 059

Governor

Governer design. : RQ300/1250AB935-2L

Governer no. : 0 420 200 107

Cust. part No. :

Customer-spec. information Customer : KHD : F6L912 Motor

Power KW : 89.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. *C Tolerance *C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 1.95 Tolerance mm : + 0.05 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 12.55 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 67.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

: +- 2.0 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 2.5

Check tolerance cm3/1000s. : 4.0	+
Rated speed rpm : 300	LOW IDLE
Rack travel in mm : 8.50 Tolerance mm : + 0.10	Testing:
Del. quantity cm3/1000 strokes : 10.0 Tolerance	+ Rated speed rpm : 300 + rack travel mm : 8.50 + Tolerance mm : +- 0.10
cm3/1000 strokes : + 1.5 Check tolerance	rack travel mm : 2.00
cm3/1000s. : +- 3.5 Spreed	Rated speed rpm : 625 Tolerance 1/min : +- 20
Tolerance cm3/1000 strokes : 4.0	Rated speed rpm : 100
Check tolerance cm3/1000s. : 6.0	CRT mm min. :> 9.50
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	TORQUE CONTROL
	Dimension a mm : 1.30 Rated speed rpm : 1250
GUIDE SLEEVE POSITION	rack travel mm : 12.55 Tolerance mm : + 0.05
•	+
Rated speed rpm : 800	Rated speed rpm : 800 rack travel mm : 13.80
Rack travel in mm : 20.00	Tolerance mm : +- 0.05
Tolerance mm : + 0.80	+ - Rated speed rpm : 910
	rack travel mm : 13.50 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10
Rated speed rpm : 1250	Rated speed rpm : 1045
Aneroid pressure	rack travel mm : 12.85 Tolerance mm : + 0.15
hPa :	Tolerance mm : +- 0.15
cm3/1000 strokes : 67.0	+
Tolerance - cm3/1000 strokes : + 0.5 -	START CUT-OUT
Check tolerance - cm3/1000s. : ← 2.0 -	Rated speed rpm : > 100
Spreed -	Rated speed rpm : < 220
Tolerance - cm3/1000 strokes : 2.5 -	t - Check
Check tolerance	speed 1/min : > 80
cm3/1000s. : 4.0	Check speed 1/min : < 240
DATEN SDEEN	
RATED SPEED	FUEL DELIVERY CHARACTERISTICS
rack travel mm : 11.50 - Rated speed rpm : 1303 -	Anaroid pressure
Rated speed rpm : 1303 - Tolerance 1/min : +- 8 -	Aneroid pressure - hPa : -
	Rated speed rpm : 800
rack travel mm : 4.00 - Rated speed rpm : 1390 -	- Del. quantity - cm3/1000 strokes : 71.5
Tolerance 1/min : +- 15	Ciliar radio del arca . Tria

Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 3.0 **BREAKAWAY** Rack travel in mm: 11.50 Rated speed rpm : Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 20.50 : + 1.00 Tolerance mm Del. quantity cm3/1000 strokes : 125.0 Tolerance cm3/1000 strokes : \leftarrow 7.5 Check tolerance cm3/1000s. : + 10.0LOW IDLE 300 Rated speed rpm 8.50 rack travel mm Tolerance mm : +- 0.10 Del. quantity cm3/1000 strokes : 10.0 Tolerance 1.5 cm3/1000 strokes : +-Check tolerance cm3/1000s. 3.5 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. 6.0 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.01.96 Test oil : ISO 4113

Combination No. : 0 400 863 020

Injection pump

Pump designation : PES3A95D410/3RS2905

EP type number : 0 410 893 996

Governor

Governer design. : RSV325...1250A5C858L

Governer no. : 0 420 232 621

Cust. part No. : 0423 1592 KY

Customer-spec. information

Customer : KHD-DMI

Motor : F3L912/913_NEU

Power KW : 40.5

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test mozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.00 Tolerance mm : + 0.05

: + 0.10

Check tolerance mm

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1- 3- 2

Phasing : 0-120-240

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.35
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 76.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s. : 8.0

Rated speed rpm : 325

	+ rack travel mm : 10.35
Rack travel in mm: 9.40	Rated speed rpm : 1295
Tolerance mm : + 0.10	Tolerance 1/min : +- 5
Dol gupptsty.	Y .
cm3/1000 strokes : 21.0	rack travel mm : 4.00
Tolerance	Rated speed rpm : 1355
cm3/1000 strokes : +- 2.0	rack travel mm : 4.00 Rated speed rpm : 1355 Tolerance 1/min : +- 15 rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1450
Check tolerance	
cm3/1000s. : +- 4.5	rack travel mm : 0.85
Spreed	Tolerance mm : + 0.55
Tolerance -	Rated speed rpm : 1450
cm3/1000 strokes : 5.5	†
Check tolerance -	rack travel mm : 4.00
cm3/1000s. : 9.0 -	Rated speed rpm : 1365
•	+
•	}
(B) SETTING OF INJECTION PUMP -	
WITH GOVERNOR	LOW IDLE
-	+
-	+
•	control lever
GUIDE SLEEVE POSITION	position degree : 65.0
	tolerance degree : +- 4.0
Rated speed rpm : 800 -	+
	Setting point w/out bumper spring
Rack travel in mm: 0.50	t
Tolerance mm : + 0.20	Rated speed rpm : 325
<u> </u>	rack travel mm : 8.90
governor spring	
pre-tension -	Testing:
click setting x : 2.25	-
-	Rated speed rpm : 325
	rack travel mm : 9.40
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
	-
Rated speed rpm : 1250 -	rack travel mm : 2.00
Aneroid pressure	Rated speed rpm : 500
hPa : -	Tolerance 1/min : +- 30
Del. quantity	-
cm3/1000 strokes : 76.0	
Tolerance	TORQUE CONTROL
cm3/1000 strokes : +- 1.0	4050
Check tolerance	
	- Rated speed rpm : 1250
cm3/1000s. : +- 3.0	rack travel mm : 11.35
cm3/1000s. : +- 3.0 Spreed	
cm3/1000S. : +- 3.0 Spreed Tolerance	rack travel mm : 11.35 Tolerance mm : +- 0.05
<pre>cm3/1000S. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5</pre>	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750
cm3/1000S. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35
<pre>cm3/1000S. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5</pre>	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750
cm3/1000S. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35
cm3/1000S. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35
cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35
cm3/1000S. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35
cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35 Tolerance mm : +- 0.10
cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35
cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 99.0	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35 Tolerance mm : +- 0.10 FUEL DELIVERY CHARACTERISTICS
cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35 Tolerance mm : +- 0.10 FUEL DELIVERY CHARACTERISTICS Aneroid pressure
cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 99.0 tolerance degree : +- 4.0	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35 Tolerance mm : +- 0.10 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa :
cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 99.0	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35 Tolerance mm : +- 0.10 FUEL DELIVERY CHARACTERISTICS Aneroid pressure
cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 8.0 CONTROL LEVER control lever position degree : 99.0 tolerance degree : +- 4.0	rack travel mm : 11.35 Tolerance mm : +- 0.05 Rated speed rpm : 750 rack travel mm : 11.35 Tolerance mm : +- 0.10 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa :

Del. quantity cm3/1000 strokes : 70.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.0 BREAKAWAY 10.35 Rack travel in mm: Rated speed rpm : 1295 Tolerance 1/min : +-STARTING FUEL DELIVERY 100 Rated speed rpm 20.25 rack travel mm Tolerance mm : + 0.75Del. quantity cm3/1000 strokes : 120.0 Tolerance 7.5 cm3/1000 strokes : +-Check tolerance cm3/1000s. : + 10.0LOW IDLE 325 Rated speed rpm 9.40 rack travel mm : + - 0.10Tolerance mm Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.01.96 : ISO 4113 Test oil

Combination No. : 0 400 863 022

Injection pump

Pump designation : PES3A95D410/3RS2905 EP type number : 0 410 893 996

Governor

Governer design. : RSV325...1250A5C860L

Governer no. : 0 420 232 623

: 0423 1730 KY Cust. part No.

Customer-spec. information Customer : KHD-DMI

Motor : F3L912/913 NEU

Power KW : 44.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C Tolerance °C : + 2.0

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 : +- 1.0 Test pressure bar : Tolerance bar

Prestroke mm 3.00 : **←** 0.05 Tolerance mm

Check tolerance mm

Rack travel in mm : 10.50

: + 0.10

Tolerance mm : +- 1.50

Firing order : 1- 3- 2

Phasing : 0-120-240

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.35 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 76.0

Tolerance

: +- 1.0 cm3/1000 strokes

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s.

8.0

Rated speed rpm : 325

Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: + 0.10 : 21.0 : + 2.0 : + 4.5	rack travel mm : 4.00 Rated speed rpm : 1355 Tolerance 1/min : + 15 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1450 rack travel mm : 4.00 Rated speed rpm : 1365	
Check tolerance cm3/1000s.	: 9.0	LOW IDLE	-
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	control lever position degree : 65.0 tolerance degree : + 4.0	
GUIDE SLEEVE POSI	TION	Setting point w/out bumper spring	g
Rated speed rpm	: 800	Rated speed rpm : 325 rack travel mm : 8.90	
Rack travel in mm Tolerance mm		Testing:	
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	Rated speed rpm : 325 + rack travel mm : 9.40 + Tolerance mm : + 0.10	
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - : 76.0	TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.35 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 11.35	
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.		Tolerance mm : + 0.10	
		+ FUEL DELIVERY CHARACTERISTICS	
CONTROL LEVER		Aneroid pressure	
control lever position degree tolerance degree	: 99.0 : +- 4.0	Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 70.0 Tolerance	
RATED SPEED		+ cm3/1000 strokes : + 2.0 + Check tolerance	
rack travel mm Rated speed rpm Tolerance 1/min	: 10.35 : 1295 : +- 5	cm3/1000s. : +- 4.0 BREAKAWAY	

Rack travel in mm: 10.35 Rated speed rpm: 1295 Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : + 7.5

Check tolerance cm3/1000s. : +- 10.0

LOW IDLE

325 Rated speed rpm 9.40 rack travel mm Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance 9.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.01.96 Test oil : ISO 4113

Combination No. : 0 400 863 023

Injection pump

Pump designation : PES3A95D410/3RS2905

EP type number : 0 410 893 996

Governor

Governor design. : RSV325...1250A5c861L

Governer no. : 0 420 232 624

Cust. part No. : 0423 1731 KY

Customer—spec. information Customer : KHD-DMI

Motor : F3L912/913_NEU

Power KW : 44.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.00
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tölerance mm : + 1.50

Firing order : 1- 3- 2

Phasing : 0-120-240

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.35
Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 76.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

3.5

8.0

Spreed

Tolerance cm3/1000 strokes :

Check tolerance cm3/1000s. :

Rated speed rpm : 325

Del. quantity cm3/1000 strokes : Tolerance cm3/1000 strokes : Check tolerance	: ← 0.10 : 21.0	rack travel mm : 4.00 Rated speed rpm : 1355 Tolerance 1/min : + 15 rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1450 rack travel mm : 4.00 Rated speed rpm : 1365
cm3/1000s.	: 9.0	LOW IDLE
(B) SETTING OF INJE WITH GOVERNOR	ECTION PUMP	control lever position degree : 65.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITI	ION	Setting point w/out bumper spring
Rated speed rpm :	: 800	Rated speed rpm : 325 rack travel mm : 8.90
Rack travel in mm : Tolerance mm :	: 0.50 +- 0.20	Testing:
FULL LOAD DELIVERY	AT FULL LOAD STOP	Rated speed rpm : 325 rack travel mm : 9.40 Tolerance mm : +- 0.10
Rated speed rpm : Aneroid pressure hPa : Del. quantity cm3/1000 strokes : Tolerance	- +	TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.35 Tolerance mm : + 0.05
cm3/1000 strokes : Check tolerance	+ 1.0 + 3.0	Rated speed rpm : 750 rack travel mm : 11.35
Spreed Tolerance cm3/1000 strokes :	3.5	Tolerance mm : +- 0.10
Check tolerance cm3/1000s. :	8.0	
	‡	FUEL DELIVERY CHARACTERISTICS
CONTROL LEVER	+	Aneroid pressure
control lever position degree : tolerance degree : RATED SPEED	99.0	hPa : - Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 70.0 Tolerance cm3/1000 strokes : +- 2.0
rack travel mm : Rated speed rpm : Tolerance 1/min :	10.35 1295 +- 5	Check tolerance cm3/1000s. : +- 4.0

10.35 Rack travel in mm : Rated speed rpm : 1295 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 20.25 rack travel mm : + 0.75Tolerance mm

Del. quantity cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : +- 7.5

Check tolerance

cm3/1000s. : +- 10.0

LOW IDLE

Rated speed rpm 325 rack travel mm 9.40 Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed

Tolerance cm3/1000 strokes :

5.5 Check tolerance

9.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 29.01.96 Edition : ISO 4113 Test oil

Combination No. : 0 400 864 099

Injection pump

Pump designation : PES4A95D410/3RS2789 EP type number : 0 410 894 995

Governor

Governer design. : RSV325...1250A5C858L

Governer no. : 0 420 232 621

Cust. part No. : 0423 1595 KY

Customer-spec. information

Customer : KHD-DMI

: F4L912/913 NEU Motor

Power KW : 54.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 3.00 : ← 0.05 Tolerance mm Check : + 0.10tolerance mm

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

Firing order : 1-3-4-2

: 0-90-180-270 Phasing

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.35 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 76.0

Tolerance cm3/1000 strokes : +-1.0

Check tolerance cm3/1000s. 3.0

Spreed Tolerance

cm3/1000 strokes :

Check tolerance

3.5

8.0 cm3/1000s. :

325 Rated speed rpm :

		+ rack tra		
Rack travel in m		+ Rated sp		
Tolerance mm	: + 0.10	† Tolerand		
Del. quantity cm3/1000 strokes	: 21.0	† rack tra		
Tolerance	. 21.0	+ Rated sp		
cm3/1000 strokes	: + 2.0	+ Tolerand		
Check tolerance		+		
cm3/1000s.	: +- 4.5	+ rack tra		
Spreed		+ Tolerand		
Tolerance cm3/1000 strokes	: 5.5	+ Rated sp		
Check tolerance	.).)	T Frack tra		
cm3/1000s.	: 9.0	+ Rated sp		
		+		
(h)		+		
(B) SETTING OF IN	NJECTION PUMP	LOW IDLE		
WITH GOVERNOR		I LOW IDLE		
		I		
		— + control		
GUIDE SLEEVE POSI	ITION	+ position		
5-41 1	. 000	† tolerand		
Rated speed rpm	: 800	+ Setting		
Rack travel in mo	n • 0 50	T secting		
Folerance mm	: + 0.20	+ Rated sp		
		rack tra		
		j i dok ci d		
		+		
re-tension	2.25	+		
ore-tension	: 2.25	+ Testing:		
ore-tension	: 2.25	Testing:		
ore-tension click setting x	: 2.25 RY AT FULL LOAD STOP	Testing: Rated sp rack tra		
ore-tension click setting x FULL LOAD DELIVER	RY AT FULL LOAD STOP	Testing: Rated sp rack tra		
ore-tension click setting x FULL LOAD DELIVER Rated speed rpm	RY AT FULL LOAD STOP	Testing: Rated sp rack tra Toleranc		
ore-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure	RY AT FULL LOAD STOP	Testing: Rated sp rack tra Toleranc		
ore-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure	RY AT FULL LOAD STOP	Testing: Rated sp rack tra Toleranc TORQUE C		
FULL LOAD DELIVER Rated speed rpm Aneroid pressure Pale quantity	RY AT FULL LOAD STOP	Testing: Rated sp rack tra Toleranc TORQUE C		
ore-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure nPa Del. quantity cm3/1000 strokes	RY AT FULL LOAD STOP : 1250 : - : 76.0	Testing: Rated sp rack tra Toleranc TORQUE C Rated sp rack tra		
Pre-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure Pa Del. quantity Cm3/1000 strokes Folerance Cm3/1000 strokes	RY AT FULL LOAD STOP : 1250 : - : 76.0	Testing: Rated sp rack tra Toleranc TORQUE C Rated sp rack tra Toleranc		
FULL LOAD DELIVER Rated speed rpm Aneroid pressure Aneroid pressure Aneroid strokes Folerance cm3/1000 strokes Check tolerance	ery AT FULL LOAD STOP : 1250 : - : 76.0 : +- 1.0	Testing: Rated sp rack tra Toleranc TORQUE C Rated sp rack tra Toleranc		
FULL LOAD DELIVER Rated speed rpm Aneroid pressure Pa Del. quantity Cm3/1000 strokes Tolerance Cm3/1000 strokes The check tolerance Cm3/1000s.	RY AT FULL LOAD STOP : 1250 : - : 76.0	Testing: Rated sp rack tra Toleranc TORQUE C Rated sp rack tra Toleranc Rated sp rack tra Rated sp		
ore-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure nPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Theck tolerance cm3/1000s. Espreed	ery AT FULL LOAD STOP : 1250 : - : 76.0 : +- 1.0	Testing: Rated sp rack tra Toleranc TORQUE C Rated sp rack tra Toleranc Rated sp rack tra Rated sp		
ore-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure nPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	ery AT FULL LOAD STOP : 1250 : - : 76.0 : +- 1.0	Testing: Rated sp rack tra Toleranc TORQUE C Rated sp rack tra Toleranc Rated sp rack tra Rated sp		
FULL LOAD DELIVER Rated speed rpm Aneroid pressure Pa Del. quantity CM3/1000 strokes Tolerance CM3/1000s. Spreed Tolerance CM3/1000 strokes Tolerance CM3/1000s. Spreed Tolerance CM3/1000strokes Tolerance CM3/1000strokes Tolerance CM3/1000strokes Tolerance	RY AT FULL LOAD STOP : 1250 : - : 76.0 : + 1.0 : + 3.0 : 3.5	Testing: Rated sp rack tra Toleranc TORQUE C Rated sp rack tra Toleranc Rated sp rack tra Rated sp		
pre-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Spreed Tolerance cm3/1000strokes Theck tolerance	eY AT FULL LOAD STOP : 1250 : - : 76.0 : + 1.0 : + 3.0	Testing: Rated sp rack tra Toleranc TORQUE C Rated sp rack tra Toleranc Rated sp rack tra Rated sp		
pre-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Spreed Tolerance cm3/1000strokes Theck tolerance	RY AT FULL LOAD STOP : 1250 : - : 76.0 : + 1.0 : + 3.0 : 3.5	Testing: Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp		
pre-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Spreed Tolerance cm3/1000strokes Theck tolerance	RY AT FULL LOAD STOP : 1250 : - : 76.0 : + 1.0 : + 3.0 : 3.5	Testing: Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp		
pre-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Spreed Tolerance cm3/1000s.	RY AT FULL LOAD STOP : 1250 : - : 76.0 : + 1.0 : + 3.0 : 3.5	Testing: Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc		
FULL LOAD DELIVER Rated speed rpm Aneroid pressure Pa Del. quantity CM3/1000 strokes Tolerance CM3/1000s. Espreed Tolerance CM3/1000 strokes Tolerance CM3/1000s.	RY AT FULL LOAD STOP : 1250 : - : 76.0 : + 1.0 : + 3.0 : 3.5	Testing: Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc		
FULL LOAD DELIVER Rated speed rpm Aneroid pressure Pa Del. quantity CM3/1000 strokes Tolerance CM3/1000s. Spreed Tolerance CM3/1000s. Spreed Tolerance CM3/1000s. Spreed Tolerance CM3/1000s. Spreed Tolerance CM3/1000s.	PRY AT FULL LOAD STOP : 1250 : - : 76.0 : +- 1.0 : +- 3.0 : 3.5 : 8.0	Testing: Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Aneroid I hPa Rated sp		
pre-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Folerance cm3/1000s. Check tolerance cm3/1000s. Check tolerance cm3/1000s. CONTROL LEVER control lever	PY AT FULL LOAD STOP : 1250 : - : 76.0 : +- 1.0 : +- 3.0 : 3.5 : 8.0	Testing: Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Aneroid I hPa Rated sp Del. quai		
pre-tension click setting x FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Check tolerance cm3/1000s. Check tolerance cm3/1000s. CONTROL LEVER	PY AT FULL LOAD STOP : 1250 : - : 76.0 : +- 1.0 : +- 3.0 : 3.5 : 8.0	Testing: Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc Rated sp rack tra Toleranc FUEL DEL		
Rated speed rpm Aneroid pressure hPa Del. quantity	PY AT FULL LOAD STOP : 1250 : - : 76.0 : +- 1.0 : +- 3.0 : 3.5 : 8.0	Rated sprack trated	rack travel mm Rated speed rpm Tolerance 1/min	
--	--------------------------------			
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1355 : +- 15			
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : ← 0.55 : 1450			
rack travel mm Rated speed rpm	: 4.00 : 1365			
LOW IDLE				
control lever position degree tolerance degree	: 65.0 : + 4.0			
Setting point w/o	ut bumper spring			
Rated speed rpm rack travel mm	: 325 : 8.90			
Testing:				
Rated speed rpm rack travel mm Tolerance mm	: 325 : 9.40 : +- 0.10			
TORQUE CONTROL				
Rated speed rpm rack travel mm Tolerance mm	: 1250 : 11.35 : +- 0.05			
Rated speed rpm rack travel mm Tolerance mm	: 750 : 11.35 : + 0.10			
FUEL DELIVERY CHAP	RACTERISTICS			
Aneroid pressure				
hPa Rated speed rpm	: – : 750			
Del. quantity cm3/1000 strokes	: 70.0			
Tolerance cm3/1000 strokes	: +- 2.0			

Check tolerance cm3/1000s. 4.0 BREAKAWAY Rack travel in mm : 10.35 Rated speed rpm : 1295 Tolerance 1/min : + 5 STARTING FUEL DELIVERY 100 Rated speed rpm rack travel mm 20.25 : +- 0.75 Tolerance mm Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : + 7.5Check tolerance cm3/1000s. : + 10.0LOW IDLE 325 Rated speed rpm 9.40 rack travel mm : + 0.10Tolerance mm Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.01.96 Test oil : ISO 4113

Combination No. : 0 400 864 100

Injection pump

Pump designation : PES4A95D410/3RS2905

EP type number : 0 410 894 995

Governor

Governer design. : RSV325...900A1C859L

Governer no. : 0 420 232 622

Cust. part No. : 0423 1596 KY

Customer-spec. information

Customer : KHD-DMI

Motor : F4L912/913_NEU

Power KW : 54.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzie holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm: 10.50
Tolerance mm: + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Del. quantity cm3/1000 strokes : 80.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s. 8.0

Rated speed rpm : 325

Rack travel in mm : 9.40 Tolerance mm : +- 0.10

Del. quantity

cm3/1000 strokes : 21.0

Tolerance cm3/1000 strokes	: 2.0	+ Rated speed rpm : 918 + Tolerance 1/min : +- 10
Check tolerance		†
cm3/1000s.	: 	+ rack travel mm : 0.85
Spreed		Tolerance mm : + 0.55
Tolerance cm3/1000 strokes	: 5.5	+ Rated speed rpm : 1090
Check tolerance	. 5.5	Track travel mm : 4.00
cm3/1000S.	: 9.0	Rated speed rpm : 940
	. 7.0	Adeca speca (piii .) 775
		+
(B) SETTING OF INJ	JECTION PUMP	+
WITH GOVERNOR		+ LOW IDLE
		+
		· †
CUITATE OF FELLE POOLT	TTAN:	+ control lever
GUIDE SLEEVE POSIT	TOM	+ position degree : 68.0
Rated speed rpm	: 800	tolerance degree : +- 4.0
Raced speed Phil	. 000	F Setting point w/out bumper spring
Rack travel in mm	: 0.50	become point would builder spring
	: +- 0.20	Rated speed rpm : 325
10001 41100	. 3125	+ rack travel mm : 8.90
governor spring		+
pre-tension		+ Testing:
click setting x	: 2.25	+
		+ rack travel mm : 2.00
	4.7. 5.4. 1.0. 0.0.0	+ Rated speed rpm : 425
FULL LOAD DELIVERY	AT FULL LOAD STOP	+ Tolerance 1/min : ← 30
Datad annual ann	: 890	Ť
Rated speed rpm Aneroid pressure	: 890	Ī
hPa	•	I
Del. quantity	•	1
cm3/1000 strokes	: 80.0	1
Tolerance		
	: +- 1.0	+ BREAKAWAY
Check tolerance		+
cm3/1000s.	: +- 3.0	†
Spreed		+ Rack travel in mm: 10.80
Tolerance	. 7.5	+ Rated speed rpm : 898
cm3/1000 strokes Check tolerance	: 3.5	Tolerance 1/min : +- 5
cm3/1000s.	: 8.0	
Sind/ (ODOS)	. 0.0	
		+ STARTING FUEL DELIVERY
		+
CONTROL LEVER		+ Rated speed rpm : 100
		+ rack travel mm : 20.25
control lever		+ Tolerance mm : + 0.75
position degree	89.9	+ Del. quantity
tolerance degree	: +- 4.0	+ cm3/1000 strokes : 120.0 + Tolerance
RATED SPEED		+ cm3/1000 strokes : +- 7.5
MAIEN OFFEN		Check tolerance
rack travel mm	: 10.80	+ cm3/1000s. : +- 10.0
Rated speed rpm	: 898	+
Tolerance 1/min	: +- 5	+
		+
rack travel mm	: 4.00	‡

LOW IDLE

Rated speed rpm 325 rack travel mm 9.40 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.01.96 Test oil : ISO 4113

Combination No. : 0 400 864 101

Injection pump

Pump designation : PES4A95D410/3RS2789

EP type number : 0 410 894 995

Governor

Governer design. : RSV325...1250A5c860L

Governer no. : 0 420 232 623

Cust. part No. : 0423 1788 KY

Customer-spec. information

Customer : KHD-DMI
Motor : F4L912/913 NEU

Power KW : 59.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.35
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 76.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s.

8.0

Rated speed rpm :

325

:

L16

Rack travel in mm Tolerance mm	: 9.40 : +- 0.10
Del. quantity cm3/1000 strokes	: 21.0
Tolerance cm3/1000 strokes	; ← 2.0
Check tolerance cm3/1000s. Spreed	: +- 4.5
Tolerance cm3/1000 strokes	: 5.5
Check tolerance cm3/1000s.	: 9.0
(B) SETTING OF INWITH GOVERNOR	JECTION PUMP
GUIDE SLEEVE POSI	TION
Rated speed rpm	: 800
Rack travel in mm Tolerance mm	: 0.50 : + 0.20
governor spring pre-tension	
click setting x	: 2.25
FULL LOAD DELIVERY	Y AT FULL LOAD STOP
Rated speed rpm	Y AT FULL LOAD STOP : 1250
Rated speed rpm Aneroid pressure hPa	
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes	
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1250 : -
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1250 : - : 76.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 1250 : - : 76.0 : + 1.0 : + 3.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 1250 : - : 76.0 : + 1.0 : + 3.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 1250 : - : 76.0 : + 1.0 : + 3.0 : 3.5
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 1250 : - : 76.0 : + 1.0 : + 3.0 : 3.5
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000strokes Check tolerance cm3/1000s.	: 1250 : - : 76.0 : + 1.0 : + 3.0 : 3.5

rack travel mm	: 10.35
Rated speed rpm	: 1295
Tolerance 1/min	: + 5
rack travel mm	: 4.00
Rated speed rpm	: 1355
Tolerance 1/min	: + 15
rack travel mm	: 0.85
Tolerance mm	: +- 0.55
Rated speed rpm	: 1450
rack travel mm	: 4.00
Rated speed rpm	: 1365
LOW IDLE	
control lever position degree tolerance degree	: 65.0 : +- 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 325
rack travel mm	: 8.90
Testing:	
Rated speed rpm	: 325
rack travel mm	: 9.40
Tolerance mm	: + 0.10
TORQUE CONTROL	
Rated speed rpm	: 1250
rack travel mm	: 11.35
Tolerance mm	: +- 0.05
Rated speed rpm	: 750
rack travel mm	: 11.35
Tolerance mm	: +- 0.10
FUEL DELIVERY CHA	RACTERISTICS

Aneroid pressure hPa Rated speed rpm : Del. quantity cm3/1000 strokes : 750 70.0 Tolerance cm3/1000 strokes : +-2.0

RATED SPEED

```
Check tolerance
                 : +- 4.0
cm3/1000s.
BREAKAWAY
Rack travel in mm: 10.35
Rated speed rpm : 1295
Tolerance 1/min : +- 5
STARTING FUEL DELIVERY
Rated speed rpm
                      100
rack travel mm
                      20.25
                 : +- 0.75
Tolerance mm
Del. quantity
cm3/1000 strokes : 120.0
Tolerance
cm3/1000 \text{ strokes} : + 7.5
Check tolerance
cm3/1000s.
                 : +- 10.0
LOW IDLE
                      325
Rated speed rpm
                 :
                      9.40
rack travel mm :
                 : + 0.10
Tolerance mm
Del. quantity
cm3/1000 strokes : 21.0
Tolerance
cm3/1000 strokes : +- 2.0
Check tolerance
cm3/1000s.
                 : +- 4.5
Spreed
Tolerance
                       5.5
cm3/1000 strokes :
Check tolerance
cm3/1000s.
                       9.0
End of test specification sheet
```

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.01.96 Test oil : ISO 4113

Combination No. : 0 400 864 102

Injection pump

Pump designation : PES4A95D41D/3RS2789

EP type number : 0 410 894 995

Governor

Governer design. : RSV325...1250A5C861L

Governer no. : 0 420 232 624

Cust. part No. : 0423 1789 KY

Customer-spec. information

Customer : KHD-DMI

Motor : F4L912/913_NEU

Power KW : 59.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.00Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.35

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 76.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 8.0

Rated speed rpm : 325

Rack travel in mm Tolerance mm	: 9.40 : + 0.10
Del. quantity cm3/1000 strokes	: 21.0
Tolerance cm3/1000 strokes	: +- 2.0
Check tolerance cm3/1000s.	: +- 4.5
Spreed Tolerance cm3/1000 strokes	: 5.5
Check tolerance	: 9.0
CIIO7 10003.	. 7.0
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP
GUIDE SLEEVE POSIT	FION
Rated speed rpm	: 800
Rack travel in mm Tolerance mm	: 0.50 : + 0.20
governor spring pre-tension click setting x	: 2.25
FULL LOAD DELIVERY	Y AT FULL LOAD STOP
· · · · · · · · · · · · · · · · · · ·	: 1250
Aneroid pressure hPa	: -
Del. quantity cm3/1000 strokes	: 76.0
Tolerance cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s.	: + 3.0
Spreed Tolerance	~
cm3/1000 strokes Check tolerance	: 3.5
cm3/1000s.	: 8.0
CONTROL LEVER	
control lever position degree	: 99.0

rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm	: 10.35 : 1295 : + 5 : 4.00 : 1355 : + 15 : 0.85 : + 0.55 : 1450
rack travel mm Rated speed rpm	: 4.00 : 1365
LOW IDLE	
control lever position degree tolerance degree	: 65.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm rack travel mm	: 325 : 8.90
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 325 : 9.40 : +- 0.10
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1250 : 11.35 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 750 : 11.35 : + 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	: -
Rated speed rpm Del. quantity	750
cm3/1000 strokes Tolerance	: 70.0
cm3/1000 strokes	: +- 2.0

RATED SPEED

Check tolerance : +- 4.0 cm3/1000s. BREAKAWAY Rack travel in mm : 10.35 Rated speed rpm : 1295 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 20.25 rack travel mm : + 0.75Tolerance mm Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : +- 7.5Check tolerance cm3/1000s. : +- 10.0 LOW IDLE 325 Rated speed rpm 9,40 rack travel mm : +- 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.01.96 Edition : ISO 4113 Test oil

Combination No. : 0 400 865 028

Injection pump

Pump designation: PES5A95D410/3RS2906 EP type number : 0 410 895 971

Governor

Governer design. : RSV325...1250A5C858L

: 0 420 232 621 Governer no.

Cust. part No. : 0423 1598 KY

Customer-spec. information Customer : KHD-DMI

: F5L912/913 NEU Motor

Power KW : 67.5

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0 x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +-1.0

Prestroke mm 3.00 Tolerance mm : + - 0.05

Check

tolerance mm : + - 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-3-5-4-2

: 0-72-144-216-288 Phasing

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.35 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 70.0

Tolerance

1.0 cm3/1000 strokes : +-

Check tolerance cm3/9000s.

3.0 : +--

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s.

8.0

Rated speed rpm :

325

Dool Assessed the man	. 0.70	+ rack t
Rack travel in mm Tolerance mm	: 9.40 : +- 0.10	+ Rated + Tolera
Del. quantity	. 24.0	+
cm3/1000 strokes Tolerance	: 21.0	+ rack t + Rated
cm3/1000 strokes	: + 2.0	+ Tolera
Check tolerance cm3/1000s.	: +- 4.5	+ rack t
Spreed	• • • • • • • • • • • • • • • • • • • •	Tolera
Tolerance cm3/1000 strokes	: 5.5	Rated
Check tolerance	, ,,,	T rack t
cm3/1000s.	: 9.0	Rated
		Ţ
(B) SETTING OF INWITH GOVERNOR	JECTION PUMP	LOW ID
WITH GOVERNOR		+ LOW ID
		+
GUIDE SLEEVE POSI	rion	+ contro
		+ tolera
Rated speed rpm	: 800	+ Settin
Rack travel in mm		+
Tolerance mm	: + 0.20	+ Rated + rack t
governor spring		+
pre-tension click setting x	: 2.25	+ Testin
or or occorning x		Rated
FULL LOAD DELTVERY	' AT FULL LOAD STOP	+ rack t + Tolera
		+
Rated speed rpm Aneroid pressure	: 1250	TORQUE
hPa	: -	+
Del. quantity cm3/1000 strokes	: 70.0	+ Rated
Tolerance	: 70.0	+ rack t + Tolera
cm3/1000 strokes	: +- 1.0	+
Check tolerance cm3/1000s.	: +- 3.0	+ Rated + rack t
Spreed		+ Tolera
Tolerance cm3/1000 strokes	: 3.5	1
Check tolerance		-
cm3/1000s.	: 8.0	İ
		FUEL D
CONTROL LEVER		+ Aneroi
CONTROL LEVER		+ hPa
control lever	: 99.0	+ Rated
position degree tolerance degree		+ Del. qu + cm3/10
_		+ Tolera
RATED SPEED		+ cm3/100
		•

rack travel mm Rated speed rpm Tolerance 1/min	: 10.35 : 1295 : +- 5
rack travel mm Rated speed rpm Tolerance 1/min	
rack travel mm Tolerance mm Rated speed rpm	: +- 0.55
rack travel mm Rated speed rpm	: 4.00 : 1365
LOW IDLE	
control lever position degree tolerance degree	: 65.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm rack travel mm	: 325 : 8.90
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 325 : 9.40 : +- 0.10
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1250 : 11.35 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 750 : 11.35 : +- 0.10
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm	: - : 750
Del. quantity cm3/1000 strokes Tolerance	•
cm3/1000 strokes	: +- 2.0

Check tolerance : +- 4.0 cm3/1000s. **BREAKAWAY** Rack travel in mm : 10.3 Rated speed rpm : 1295 10.35 Tolerance 1/min : + 5 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.25 : +- 0.75 Tolerance mm Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : + 7.5Check tolerance cm3/1000s. : **←** 10.0 LOW IDLE Rated speed rpm : 325 9.40 rack travel mm : Tolerance mm : + 0.10Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance 5.5 cm3/1000 strokes : Check tolerance 9.0 cm3/1000s. End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 31.01.96 Edition Test oil : ISO 4113

Combination No. : 0 400 866 082

Injection pump

Pump designation : PES6A85D410/3RS2415

EP type number : 0 410 886 915

Governor

Governer design. : RS325/1325AOC709DL

Governer no. : 0 420 220 009

Cust. part No.

Customer-spec. information

: KHD Customer

: BF6L913 Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 5**81 343 009**

Opening pressure

173.5 : +- 1.5

Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 1.95 : + - 0.05Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1325

Rack travel in mm: 12.05 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 87.0

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : +-

:

Spreed

Tolerance

cm3/1000 strokes :

3.0

2.5

Check tolerance

cm3/1000s.

7.0

•	325	Rated speed rpm	: 1600
	8.30	LOW IDLE	
cm3/1000 strokes : Tolerance	16.5	Setting point w/o	ut bumper spring
cm3/1000 strokes : +- Check tolerance	2.0	Rated speed rpm rack travel mm	: 500 : 3.70
cm3/1000s. : +- Spreed	4.0	Testing:	
Tolerance cm3/1000 strokes : Check tolerance	4.5	Rated speed rpm rack travel mm	: 325 : 6.50
cm3/1000s.	7.0	Tolerance mm	: +- 0.10
(B) SETTING OF INJECTIO WITH GOVERNOR	N PUMP	rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 375 : + 25
		Rated speed rpm	: 100
FULL LOAD DELIVERY AT F	TULL LOAD STOP	CRT mm min.	: 14.75
Aneroid pressure	700	TORQUE CONTROL	
Del. quantity cm3/1000 strokes :	87.0	Rated speed rpm rack travel mm	: 1325 : 12.05
Tolerance	+	Tolerance mm	: + 0.05
Check tolerance	+	Rated speed rpm	: 500
cm3/1000S. : +- Spreed	2.5	rack travel mm Tolerance mm	: 12.10 : + 0.10
Tolerance cm3/1000 strokes :	3.0	Rated speed rpm	: 800
Check tolerance cm3/1000S. :	7.0	rack travel mm Tolerance mm	: 12.10 : +- 0.10
CONTROL LEVER		ANEROID/ALTITUDE COMPENSATOR TEST	
<pre>control lever position degree : +-</pre>	68.0	SETTING	500
RATED SPEED	‡	Rated speed rpm Pressure hPa rack travel mm	: 500 : 700 : 12.05
	11.00 360	Tolerance mm	: + 0.05
Tolerance 1/min : +	5	MEASUREMENT	
	4.00 465	Pressure hPa Rated speed rpm	: - : 500
Tolerance 1/min : +-	15	rack travel mm Tolerance mm	: 10.75 : + 0.05
rack travel mm : Tolerance mm :+-	0.85 +	Rated speed rpm	: 500

L26

Pressure hPa rack travel mm Tolerance mm	: 266 : 11.30 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 373 : 11.75 : +- 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa Rated speed rpm	: 700 : 800
Del. quantity	
cm3/1000 strokes Tolerance	: 78.5
cm3/1000 strokes	: - 1.5
Check tolerance cm3/1000S.	: +- 3.5
	- · -
Aneroid pressure hPa	: -
Rated speed rpm	: 500
Del. quantity cm3/1000 strokes	: 57.0
Tolerance	0.5
cm3/1000 strokes Check tolerance	: +- 0.5
cm3/1000s.	: ← 2.5
BREAKAWAY	· · · · · · · · · · · · · · · · · · ·
Rack travel in mm	
Rated speed rpm Folerance 1/min	
Occidinos (78)	•
STARTING FUEL DEL	
	400
Rated speed rpm rack travel mm	: 100 : 16.50
Folerance mm	: +- 0.20
Del. quantity cm3/1000 strokes	: 108.0
Tolerance	
cm3/1000 strokes Check tolerance	: + 7.5

Rated speed rpm rack travel mm Tolerance mm	: : : +	325 8.30 - 0.10
Del. quantity cm3/1000 strokes Tolerance	:	16.5
cm3/1000 strokes	: +	- 2.0
Check tolerance cm3/1000S. Spreed	: +	- 4.0
Tolerance cm3/1000 strokes	:	4.5
Check tolerance cm3/1000s.	:	7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 29.01.96 Edition : ISO 4113 Test oil

Combination No. : 0 400 866 224

Injection pump

Pump designation : PES3A95D410/3RS2905

EP type number

Governor

Governer design. : RSV325...1250A5C858L

Governer no.

Cust. part No. : 0423 1592 KY

Customer-spec. information

Customer : KHD-DMI : F3L912/913 NEU Motor

Power KW : 40.5

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 Tolerance bar : + 1.5

: 1 680 750 014 Test Lines

Outside diameter : 6.0 x inside diameter: 2.0 x length mm 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 3.00 Tolerance mm : +- 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1- 3- 2

: 0-120-240 Phasing

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.35 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 76.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. : +-3.0

Spreed Tolerance

cm3/1000 strokes :

3.5

Check tolerance cm3/1000s.

8.0

Rated speed rpm :

325

+	rack travel mm : 10.35
Rack travel in mm: 9.40 + Tolerance mm: + 0.10 + Del. quantity	Rated speed rpm : 1295 Tolerance 1/min : +- 5
cm3/1000 strokes : 21.0 + Tolerance	rack travel mm : 4.00 Rated speed rpm : 1355
cm3/1000 strokes : + 2.0 + Check tolerance +	Tolerance 1/min : +- 15
cm3/1000s. : + 4.5 +	rack travel mm : 0.85 Tolerance mm : + 0.55
Tolerance cm3/1000 strokes : 5.5	Rated speed rpm : 1450
Check tolerance cm3/1000s. : 9.0	rack travel mm : 4.00 Rated speed rpm : 1365
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
	control lever
GUIDE SLEEVE POSITION	position degree : 65.0 tolerance degree : + 4.0
Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm: 0.50	_ · · · · · · · · · · · · · · · · · · ·
Tolerance mm : + 0.20 +	Rated speed rpm : 325 rack travel mm : 8.90
governor spring + pre-tension +	Testing:
click setting x : 2.25	Rated speed rpm : 325
	rack travel mm : 9.40
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10
Rated speed rpm : 1250	rack travel mm : 2.00
Aneroid pressure + + + + + + + + + + + + + + + + + + +	Rated speed rpm : 500 Tolerance 1/min : +- 30
Del. quantity + cm3/1000 strokes : 76.0 +	
Tolerance + 1.0 +	TORQUE CONTROL
Check tolerance	Rated speed rpm : 1250
Spreed	rack travel mm : 11.35 Tolerance mm : +- 0.05
Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 750
Check tolerance cm3/1000s. : 8.0	rack travel mm : 11.35 Tolerance mm : +- 0.10
	, , , , , , , , , , , , , , , , , , ,
CONTROL LEVER	
control lever	FUEL DELIVERY CHARACTERISTICS
position degree : 99.0 + tolerance degree : +- 4.0 +	Aneroid pressure
RATED SPEED	hPa : - Rated speed rpm : 750
+	

Del. quantity cm3/1000 strokes : 70.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.0 BREAKAWAY Rack travel in mm : 10.35 Rated speed rpm : 1295 Tolerance 1/min : -STARTING FUEL DELIVERY Rated speed rpm 100 20.25 rack travel mm : + 0.75Tolerance mm Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : + 7.5Check tolerance cm3/1000s. : + 10.0LOW IDLE 325 Rated speed rpm 9.40 rack travel mm : + 0.10Tolerance mm Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +- 2.0Check tolerance cm3/1000s. 4.5 Spreed Tolerance 5.5 cm3/1000 strokes : Check tolerance 9.0 cm3/1000s. End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 24.01.96 Test oil : ISO 4113

Combination No. : 9 400 030 708

Injection pump

Pump designation : PES6A100D320/3RS3506

EP type number : 9 410 037 236

Governor

Governer design. : RQV400...1250AB1301R

Governer no. : 9 420 030 158

Cust. part No. : TATA-CUMMINS

Customer—spec. information Customer : CUMMINS

Motor : 6BT - 125 ps

TEST BENCH REQUIREMENTS

Inlet line : 1.1;

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 9 451 037 430

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

400

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 10.30 Tolerance mm : +- 0.05

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE TRAVEL

Rated speed rpm :

guide sleeve

travel mm : 1.71
Tolerance mm : +- 0.20

Rated speed rpm : 1347

guide sleeve

travel mm : 8.48

Tolerance mm : + 0.15	+
Rated speed rpm : 880 guide sleeve travel mm : 4.97 Tolerance mm : + 0.25	control lever position degree : 15.0 tolerance degree : +- 4.0 Testing:
Rated speed rpm : 499 guide sleeve travel mm : 2.75 Tolerance mm : + 0.25	Rated speed rpm : 400 rack travel mm : 6.40 Tolerance mm : + 0.10
Rated speed rpm : 549 guide sleeve travel mm : 3.30 Tolerance mm : + 0.25 Rated speed rpm : 560	rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30 Rated speed rpm : 100
guide sleeve travel mm : 3.37 Tolerance mm : +- 0.25	CRT mm min. :> 9.00
Rated speed rpm : 1620 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50	TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 10.30 Tolerance mm : +- 0.05
GUIDE SLEEVE POSITION Rated speed rpm : 1250	Rated speed rpm : 550 rack travel mm : 10.30 Tolerance mm : + 0.10
Rack travel in mm: 16.00 Tolerance mm: +- 1.30	Rated speed rpm : 750 rack travel mm : 10.30 Tolerance mm : + 0.15
CONTROL LEVER	ANEROID/ALTITUDE COMPENSATOR TEST
control lever position degree : 61.0 tolerance degree : + 4.0	SETTING Rated speed rpm : 800
RATED SPEED rack travel mm : 9.30 Rated speed rpm : 1335 Tolerance 1/min : +- 5	Rated speed rpm : 800 Pressure hPa : 1000 rack travel mm : 10.30 Tolerance mm : +- 0.05 MEASUREMENT
rack travel mm : 4.00 Rated speed rpm : 1430 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50	Rated speed rpm : 800 Pressure hPa : - rack travel mm : 10.30 Tolerance mm : +- 0.05
Rated speed rpm : 1490	Pressure hPa : 500 rack travel mm : 10.30 Tolerance mm : + 0.05
LOW IDLE	†

M04

START CUT-OUT

Rated speed rpm : > Rated speed rpm : < 120 300

Check

speed 1/min :> 100 Check

speed 1/min : < 340

BREAKAWAY

Rack travel in mm : 9.30
Rated speed rpm : 1335
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 14.40 Tolerance mm : + 0.50

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 14.09.94 Edition : ISO 4113 Test oil Combination No. : 9 400 085 315 Injection pump Pump designation : PES6A95D410RS2772 : 9 400 084 018 EP type number Governor Governer design. : RQV300...1300AB1066 : -9L : 9 420 080 282 Governer no. Cust. part No. Customer-spec. information Customer : MBB : OM 366 A Motor Power KW : 125.0 TEST BENCH REQUIREMENTS Inlet line : 3.1 Test oil inlet temp. °C 40 Tolerance °C 2.0 Overflow valve : 1 419 992 198 Inlet press. bar : 1.5 Test nozzle holde : 0 681 343 009 assembly Opening pressure 173.5 Tolerance bar : +- 1.5 : 1 680 750 015 Test lines Outside diameter : 6.0

M06

: -300 BASIC SETTING Rated speed rpm : 1300 Rack travel in mm : 10.45 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	x inside diameter x length mm	: 3.0 : 600
Set equal delivery quant. per values BEGINNING OF DELIVERY Test pressure bar : 26.0 Tolerance bar : + 1.0 Prestroke mm : 3.25 Tolerance mm : + 0.05 Check tolerance mm : + 0.10 Rack travel in mm : 10.50 Tolerance mm : + 1.50 Firing order : 1-5-3-6-2- : 4 Phasing : 0-60-120-180-240 : -300 BASIC SETTING Rated speed rpm : 1300 Rack travel in mm : 10.45 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	REMARKS	
Test pressure bar : 26.0 Tolerance bar : + 1.0 Prestroke mm : 3.25 Tolerance mm : + 0.05 Check tolerance mm : + 0.10 Rack travel in mm : 10.50 Tolerance mm : + 1.50 Firing order : 1-5-3-6-2- : 4 Phasing : 0-60-120-180-240 : -300 BASIC SETTING Rated speed rpm : 1300 Rack travel in mm : 10.45 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Set equal deliver	
Tolerance bar : + 1.0 Prestroke mm : 3.25 Tolerance mm : + 0.05 Check tolerance mm : + 0.10 Rack travel in mm : 10.50 Tolerance mm : + 1.50 Firing order : 1-5-3-6-2- : 4 Phasing : 0-60-120-180-240 : -300 BASIC SETTING Rated speed rpm : 1300 Rack travel in mm : 10.45 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s: + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	BEGINNING OF DELI	VERY
Tolerance mm : + 0.05 Check tolerance mm : + 0.10 Rack travel in mm : 10.50 Tolerance mm : + 1.50 Firing order : 1-5-3-6-2- : 4 Phasing : 0-60-120-180-240 : -300 BASIC SETTING Rated speed rpm : 1300 Rack travel in mm : 10.45 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000s : + 1.0 Check tolerance cm3/1000s : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance		: 26.0 : + 1.0
Rack travel in mm : 10.50 Tolerance mm : +- 1.50 Firing order : 1-5- 3- 6- 2- : 4 Phasing : 0-60-120-180-240 : -300 BASIC SETTING Rated speed rpm : 1300 Rack travel in mm : 10.45 Tolerance mm : +- 0.05 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Tolerance mm Check	: + 0.05
Tolerance mm : +- 1.50 Firing order : 1- 5- 3- 6- 2- : 4 Phasing : 0-60-120-180-240 : -300 BASIC SETTING Rated speed rpm : 1300 Rack travel in mm : 10.45 Tolerance mm : +- 0.05 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance		
: 4 Phasing : 0-60-120-180-240 : -300 BASIC SETTING Rated speed rpm : 1300 Rack travel in mm : 10.45 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance		: 10.50 : +- 1.50
: -300 BASIC SETTING Rated speed rpm : 1300 Rack travel in mm : 10.45 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Firing order	
Rated speed rpm : 1300 Rack travel in mm : 10.45 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Phasing	
Rack travel in mm: 10.45 Tolerance mm: + 0.05 Del. quantity cm3/1000 strokes: 88.0 Tolerance cm3/1000 strokes: + 1.0 Check tolerance cm3/1000s.: + 3.0 Spreed Tolerance cm3/1000 strokes: 3.5 Check tolerance	BASIC SETTING	
Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Rated speed rpm	: 1300
<pre>cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance</pre>	Rack travel in mm Tolerance mm	
<pre>cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance</pre>	Del. quantity cm3/1000 strokes	: 88.0
cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Tolerance cm3/1000 strokes	: +- 1.0
Tolerance cm3/1000 strokes : 3.5 Check tolerance	Check tolerance cm3/1000S.	; ÷ 3.0
	Spreed Tolerance cm3/1000 strokes	: 3.5
	Check tolerance cm3/1000s.	: 8.0

	1 One and
Dol graphitis	+ Spreed
Del. quantity cm3/1000 strokes : 11.5	+ Tolerance + cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : +- 2.0	cm3/1000s. : 8.0
Check tolerance	+
cm3/1000s. : +- 4.5	+
Spreed	
Tolerance	+ CONTROL LEVER
cm3/1000 strokes : 3.5	†
Check tolerance cm3/1000s. : 9.0	control lever
CIIID/ 10003	+ position degree : 109.0 + tolerance degree : +- 4.0
	- toter ance degree : 4.5
(B) SETTING OF INJECTION PUMP	RATED SPEED
WITH GOVERNOR -	+
· · · · · · · · · · · · · · · · · · ·	rack travel mm : 9.40
	Rated speed rpm : 1365
GUIDE SLEEVE TRAVEL	Tolerance 1/min : + 5
Rated speed rpm : 300	t + rack travel mm : 4.00
guide sleeve	+ Rated speed rpm : 1485
travel mm : 1.05	Tolerance 1/min : +- 15
Tolerance mm : + 0.25	1
-	rack travel mm : 0.50
Rated speed rpm : 1500 -	Tolerance mm : +- 0.50
guide sleeve -	Rated speed rpm : 1650
travel mm : 8.55	†
Tolerance mm : + 0.05	<u> </u>
Rated speed rpm : 500	LOW IDLE
guide sleeve -	
travel mm : 2.55 -	_
Tolerance mm : +- 0.25 * -	control lever
	position degree : 68.0
Rated speed rpm : 750 -	tolerance degree : + 4.0
guide sleeve	
travel mm : 4.20 - Tolerance mm : + 0.10 -	Testing:
Tolerance mm : + 0.10	r Rated speed rpm : 300
	rack travel mm : 7.00
GUIDE SLEEVE POSITION	Tolerance mm : +- 0.10
7	
Rated speed rpm : 1500 -	Rated speed rpm : 100
44.50	
Rack travel in mm: 16.50	CRT mm min. : > 8.00
Tolerance mm : +- 1.30	r - Rated speed rpm : 375
	- Rated speed rpm : 375
FULL LOAD DELIVERY AT FULL LOAD STOP	
	TORQUE CONTROL
Rated speed rpm : 1300 -	
Aneroid pressure	Rated speed rpm : 1300
hPa : 800 -	rack travel mm : 10.45
Del. quantity - cm3/1000 strokes : 88.0 -	Tolerance mm : +- 0.05
Tolerance	Rated speed rpm : 800
cm3/1000 strokes : +- 1.0	rack travel mm : 10.95
Check tolerance	- Tolerance mm : +- 0.05
cm3/1000s. : +- 3.0	-
'	

M07

Rated speed rpm rack travel mm Tolerance mm	: 10.70	+ Tolerance - cm3/1000 strokes : +- 2.0 - Check tolerance - cm3/1000s. : +- 4.0
ANEROID/ALTITUDE COMPENSATOR TEST		Aneroid pressure hPa : - Rated speed rpm : 500
SETTING		Del. quantity cm3/1000 strokes : 51.0 Tolerance
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 800	cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
MEASUREMENT		BREAKAWAY
Pressure hPa Rated speed rpm Rated speed rpm		Rack travel in mm: 9.40 Rated speed rpm: 1365 Tolerance 1/min: +- 5
Pressure hPa rack travel mm Tolerance mm	: 300 : 0.50 : + 0.10	STARTING FUEL DELIVERY
Pressure hPa rack travel mm Tolerance mm	: 460 : 1.15 : +- 0.05	Rated speed rpm : 100 rack travel mm : 13.70 Tolerance mm : + 0.10 Del. quantity
START CUT-OUT		+ cm3/1000 strokes : 85.0 + Tolerance + cm3/1000 strokes : +- 7.5
Rated speed rpm Rated speed rpm		Check tolerance cm3/1000s. : +- 10.0
Check speed 1/min Check	; > 80	
speed 1/min	: < 240	LOW IDLE
FUEL DELIVERY CHA	ARACTERISTICS	Del. quantity cm3/1000 strokes : 11.5 Tolerance
Aneroid pressure hPa	: 800	cm3/1000 strokes : +- 2.0 Check tolerance
Rated speed rpm Del. quantity		cm3/1000s. : +- 4.5 Spreed
cm3/1000 strokes Tolerance cm3/1000 strokes		Tolerance cm3/1000 strokes : 3.5 Check tolerance
Check tolerance cm3/1000s.	: +- 4.0	cm3/1000s. : 9.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes		† †

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 05.02.96 Test oil : ISO 4113

Combination No. : 0 402 066 704

Injection pump

Pump designation : PES6P120A120RS3358

EP type number : 0 412 026 784

Governor

Governer design. : RSV475...1250P2A613

Governer no. : 0 421 833 501

Cust. part No. : 3927359

Customer-spec. information

Customer : CDC

Motor : 6BTA-590 ELITE

Power KW : 149.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : +- 0.50

Start of delivery blocking

*NW after s.o.d. : 7.50 Tolerance : +- 0.50

Check

tolerance $^{\circ}NW$: + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.90 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 152.0	Check tolerance cm3/1000s. : 7.5
Tolerance cm3/1000 strokes : +- 1.0	CONTROL LEVER
Check tolerance cm3/1000s. : + 3.0	control Léver position degree : 110.0
Spreed Tolerance cm3/1000 strokes : 4.0	tolerance degree : +- 4.0 RATED SPEED
Check tolerance cm3/1000s. : 7.5	rack travel mm : 10.90 Rated speed rpm : 1320
Rated speed rpm : 475	Tolerance 1/min : +- 5
Rack travel in mm: 5.50 Tolerance mm: + 0.30 Del. quantity	rack travel mm : 4.00 Rated speed rpm : 1420 Tolerance 1/min : +- 15
cm3/1000 strokes : 22.0 + Tolerance +	rack travel mm : 0.85 Tolerance mm : + 0.55
cm3/1000 strokes : +- 2.0 +- Check tolerance cm3/1000s. : +- 4.5	Rated speed rpm : 1500
Spreed Tolerance	LOW IDLE
cm3/1000 strokes : 6.0 + Check tolerance	
cm3/1000s. : 9.0	<pre>control lever position degree : 84.0 tolerance degree : +- 4.0</pre>
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Testing:
 	Rated speed rpm : 475 rack travel mm : 5.50
GUIDE SLEEVE POSITION	Tolerance mm : + 0.10
Rated speed rpm : 800	rack travel mm : 2.00 Rated speed rpm : 570
Rack travel in mm : 0.50 + Tolerance mm : + 0.20 +	Tolerance 1/min : +- 30 SET IDLE AUXILIARY SPRING
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00
+	rack travet mm . 2.00
Rated speed rpm : 1250 + Aneroid pressure + hPa : 1500 +	TORQUE CONTROL
Del. quantity cm3/1000 strokes : 152.0 Tolerance	Rated speed rpm : 1250 rack travel mm : 11.90 Tolerance mm : +- 0.05
cm3/1000 strokes : +- 1.0 + Check tolerance + 3.0 + +	Rated speed rpm : 750 rack travel mm : 11.90
Spreed Tolerance	Tolerance mm : +- 0.10
cm3/1000 strokes : 4.0	

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 11.90
Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 9.10
Tolerance mm : + 0.20

Rated speed rpm : 500

Pressure hPa : 975
rack travel mm : 11.20
Tolerance mm : + 0.20

Pressure hPa : 575
rack travel mm : 9.50
Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1500
Rated speed rpm : 750
Del. quantity
cm3/1000 strokes : 170.0
Tolerance
cm3/1000 strokes : + 3.0
Check tolerance
cm3/1000s. : + 6.0

Spreed Tolerance

cm3/1000 strokes : 12.0 Check tolerance

cm3/1000s. : 16.0

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 99.0
Tolerance
cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 10.90
Rated speed rpm : 1320
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity cm3/1000 strokes : 165.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0

LOW IDLE

475 Rated speed rpm rack travel mm 5.50 0.30 Tolerance mm Del. quantity cm3/1000 strokes 22.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance 9.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.02.96 Test oil : ISO 4113

Combination No. : 0 402 896 009

Injection pump

Pump designation : PE6P120A320RS8020

EP type number : 0 412 826 021

Governor

Governer design. : RE30

Governer no. : 0 421 890 010

Cust. part No. : 479889-P03 V.08/95

Customer-spec. information

Customer : VOLVO-TRUCK

Motor : TD123,TD103 E ES

Power KW : 290.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

Pump-specific values in Section (B) must be observed!

(A) INJECTION PUMP SETTINGS

No basic setting.

Setting of constant delivery

under Section C.

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.05

Prestroke mm : 4.00
Tolerance mm : + 0.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Rack travel in mm: 10.50
Tolerance mm: + 0.50

Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : +- 0.75

Start of delivery mark

Barrel no. : 1

(B) POSITIONER TESTING Warm-up time: 3 minutes at n=600 min-1, Uact = 2.5 V
TESTING & SETTING RACK TRAVEL SENSOR POSITION
Engine speed min-1: 0
Setting point (P, R and H pump)
Uact V : 3.100 CRT mm : 13.00 Tolerance mm : +/- 0.05 Check tolerance mm : +/- 0.10
Check value (P, R and H pump)
Uact V : 1.700 CRT mm : 6.15 Tolerance mm : +/- 0.25 Check tolerance mm : +/- 0.30
Setting point (M pump)
Uact V : 3.100 CRT mm : 12.50 Tolerance mm : +/- 0.05 Check tolerance mm : +/- 0.10
Check value (M pump)
Uact V : 1.700 CRT mm : 5.50 Tolerance mm : +/- 0.25 Check tolerance mm : +/- 0.30
Stop position
Uact V: Value with deenergised adjusting magnet and control rod in stop position.
CRT mm : 0.75 Tolerance mm : +/- 0.25 Check

: +/- 0.35

ENGINE-SPEED SENSOR (All P and R pumps not H and M pumps) Test with control rod in stop position

Engine speed min-1: 60
Amplitude V : 1.4
Tolerance V : +/- 0.6
Check
tolerance V : +/- 1.20

Engine speed min-1: 600

Difference Amplitude to

Amplitude V : max.1.4

(C) INJECTION PUMP WITH POSITIONER

TEST POINT V1

600 Rated speed rpm Uact V 2.800 Del. quantity cm3/1000 strokes : 302.0 Tolerance cm3/1000 strokes : +-Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 11.0

FUEL DELIVERY CHARACTERISTICS

950 Rated speed rpm 2.800 Uact V Del. quantity cm3/1000 strokes : 258.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 10.0 Check tolerance cm3/1000s. 14.0 Rated speed rpm 950

Vact V : 2.200
Del. quantity
cm3/1000 strokes : 183.0

tolerance mm

Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 6.0 TEST POINT L1

Rated speed rpm : 250
Uact V : 1.400
Tolerance Volt : + 0.060
Check tolerance
Volt : + 0.060
Del. quantity
cm3/1000 strokes : 22.0
Tolerance
cm3/1000 strokes : + 2.0
Spreed

Tolerance cm3/1000 strokes : +- 2.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 01.02.96 Edition Test oil : ISO 4113

Combination No. : 0 403 244 047

Injection pump

Pump designation : PES4MW100/720RS1525

EP type number : 0 413 204 022

Governor

Governer design. : RQV300...1300MW132

: -13

: 0 420 083 330 Governer no.

Cust. part No. : 0260746302

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar : +- 1.5 Tolerance bar

: 1 680 750 089 Test lines

Outside diameter : 8.0 x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +-

Prestroke mm 4.55 : +- 0.05 Tolerance mm Check

tolerance mm

: + 0.10

Rack travel in mm: 20.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : +- 0.50

Check

tolerance °NW : + - 0.75

BASIC SETTING

Rated speed rpm : 1300

13.30 Rack travel in mm: Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 119.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

4.0 cm3/1000s. : +-

Spreed Tolerance

cm3/1000 strokes :

5.0

Check tolerance cm3/1000s.	: 8.0 ‡	Rated speed rpm : 1780
Rated speed rpm	: 300	guide sleeve travel mm : 13.50
Rack travel in m Tolerance mm		Tolerance mm : + 0.50
Del. quantity cm3/1000 strokes	: 12.0	GUIDE SLEEVE POSITION
Tolerance cm3/1000 strokes	: +- 2.0 +	Rated speed rpm : 1445
Check tolerance cm3/1000s.	: + 4.5	Rack travel in mm : 10.00 Tolerance mm : +- 2.50
Spreed Tolerance	+	
cm3/1000 strokes Check tolerance	: 2.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 4.0	Rated speed rpm : 1300 Aneroid pressure
(B) SETTING OF IN	LIECTION PIMP	hPa : 1200 Del. quantity
WITH GOVERNOR		cm3/1000 strokes : 119.0 Tolerance
GUIDE SLEEVE TRAV		cm3/1000 strokes : +- 1.0 Check tolerance
Rated speed rpm	+	cm3/1000s. : +- 4.0 Spreed
guide steeve travet mm	: 0.91	Tolerance cm3/1000 strokes : 5.0
Tolerance mm	: +- 0.25	Check tolerance cm3/1000s. : 8.0
Rated speed rpm guide sleeve	: 1354	CIID/ (0003 0.0
travel mm	: 7.15 : + 0.25	CONTROL LEVER
Tolerance mm	+	CONTROL LEVER
Rated speed rpm guide sleeve	+	control lever position degree : 113.0
travel mm Tolerance mm	: 5.40 : + 0.25	tolerance degree : +- 4.0
Rated speed rpm	: 610	RATED SPEED
guide sleeve travel mm	: 2.96	rack travel mm : 12.30 Rated speed rpm : 1345
Tolerance mm	: + 0.25	Tolerance 1/min : +- 5
Rated speed rpm guide sleeve	: 660	rack travel mm : 4.00 Rated speed rpm : 1475
travel mm Tolerance mm	: 3.31 : + 0.25	Tolerance 1/min : +- 15
Rated speed rpm	: 780	rack travel mm : 0.50 Tolerance mm : +- 0.50
guide sleeve travel mm	: 3.72	Rated speed rpm : 1550
Tolerance mm	: + 0.25	
Rated speed rpm guide sleeve	: 1679	LOW IDLE
travel mm Tolerance mm	: 12.00 : + 0.25	

		+ Check
control lever position degree	: 74.0	speed 1/min :> 80
tolerance degree	· + 4.0	speed 1/min : < 220
Testing:		FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 300	+
rack travel mm	: 3.90 : +- 0.10	+ Aneroid pressure + hPa : 1200
Tolerance mm	. +- 0.10	Rated speed rpm : 600
Rated speed rpm	: 200	→ Del. quantity
CRT mm min.	. > 4.50	cm3/1000 strokes : 117.0 Tolerance
CRI mm miri.	: > 4.30	+ cm3/1000 strokes : +- 2.0
TORQUE CONTROL		- + Check tolerance + cm3/1000s. : +- 5.0
		+ Spreed
Rated speed rpm	: 1300_	+ Tolerance
Rated speed rpm rack travel mm Tolerance mm	: 13.30	+ cm3/1000 strokes : 6.0
loterance mm	: + 0.03	+ Check tolerance + cm3/1000s. : 9.0
Rated speed rpm	: 600	Check tolerance cm3/1000s. : 9.0 Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity
rack travel mm	: 13.30	+ Aneroid pressure
Tolerance mm	: +- 0.70	hPa : - Rated speed rpm : 500
		- + Del. quantity
ANEROID/ALTITUDE		+ cm3/1000 strokes : 50.0
COMPENSATOR TEST		+ Tolerance
		cm3/1000 strokes : + 1.0 + Check tolerance
SETTING		+ cm3/1000s. : + 3.0
		+
Rated speed rpm Pressure hPa rack travel mm	: 500	BREAKAWAY
rack travel mm	: 13.30	DICAINA I
Tolerance mm	: +- 0.05	+
AREA OLIDERATATE		Rack travel in mm: 12.30
MEASUREMENT		+ Rated speed rpm : 1345 + Tolerance 1/min : +- 5
Pressure hPa	: -	+
Rated speed rpm	: 500	†
Tolerance mm	: +- 0.10	STARTING FUEL DELIVERY
Rated speed rpm	: 500	TOTAL TOLL DELIGERY
	770	+ Rated speed rpm : 100
Pressure hPa rack travel mm	: 750 : 3.50	+ Del. quantity + cm3/1000 strokes : 150.0
Tolerance mm	: +- 0.10	Tolerance
		cm3/1000 strokes : +- 5.0
Pressure hPa	: 350 : 1.20	+ Check tolerance + cm3/1000s. :+- 8.0
rack travel mm Tolerance mm	: +- 0.10	
. U SUT WE TOO HAIT		+
START CUT-OUT		
		LOW IDLE
Rated speed rpm		+ Rated speed rpm : 300
Rated speed rpm	: \ 200	+ Rated speed rpm : 300 + rack travel mm : 3.90
		1 CHOIC CLUTTE INTO

Tolerance mm	: +-	0.20
Del. quantity cm3/1000 strokes	:	12.0
Tolerance cm3/1000 strokes	: +-	2.0
Check tolerance cm3/1000s.	: +-	4.5
Spreed Tolerance		
cm3/1000 strokes	:	2.0
Check tolerance cm3/1000s.	:	4.0

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 06.02.96 Edition Test oil : ISO 4113 Combination No. : 0 403 444 142 Injection pump Pump designation : PES4MW100/720RS1212 EP type number : 0 413 404 114 Governor Governer design. : RQV300...1300MW50 : -15 Governer no. : 0 420 083 238 Cust. part No. Customer-spec. information Customer : MB-NFZ Motor : OM364LA Power KW : 102.0 TEST BENCH REQUIREMENTS Inlet line : 3.1 Test oil inlet 40 temp. °C Tolerance °C 2.0 : 1 419 992 198 Overflow valve Inlet press. bar : 1.5 Test nozzle holde : 1 688 901 101 assembly Opening pressure 208.5 bar Tolerance bar : +- 1.5

: 1 680 750 089

8.0

REMARKS	
(A) INJECTION PUM Set equal deliver per values	
BEGINNING OF DELI	VERY
Test pressure bar Tolerance bar	: 31.0 : + 1.0
Prestroke mm Tolerance mm Check	: 3.75 : +- 0.05
tolerance mm	: +- 0.10
Rack travel in mm Tolerance mm	: 10.50 : + 1.50
Firing order	: 1-3-4-2
Phasing Tolerance Check tolerance °NW	: 0-90-180-270 : +- 0.50 : +- 0.75
BASIC SETTING	····
Rated speed rpm	: 1300
Rack travel in mm Tolerance mm	: 13.25 : + 0.05
Del. quantity cm3/1000 strokes	: 102.0
Tolerance cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s.	: +- 3.0
Spreed Tolerance cm3/1000 strokes	: 3.5

x inside diameter:

3.0

Test lines

Outside diameter :

Check tolerance cm3/1000s.	: 6.0	†
		GUIDE SLEEVE POSITION
Rated speed rpm		Rated speed rpm : 1440
Rack travel in m Tolerance mm		Rack travel in mm: 10.00
Del. quantity cm3/1000 strokes	: 12.0	Tolerance mm : + 2.70
Tolerance cm3/1000 strokes		FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s.	: +- 4.5	+ Rated speed rpm : 1300
Spreed Tolerance		+ Aneroid pressure + hPa : 700
cm3/1000 strokes Check tolerance	·	+ Del. quantity + cm3/1000 strokes : 102.0
cm3/1000s.	: 5.5	+ Tolerance + cm3/1000 strokes : + 1.0
(B) SETTING OF IN	NJECTION PUMP	+ Check tolerance + cm3/1000s. : + 3.0
WITH GOVERNOR		+ Spreed + Tolerance
GUIDE SLEEVE TRAN	/EL	- cm3/1000 strokes : 3.5 - Check tolerance - cm3/1000s. : 6.0
Rated speed rpm guide sleeve	: 300	
travel mm Tolerance mm	: 1.40 : +- 0.25	CONTROL LEVER
Rated speed rpm	: 1355	control lever
guide sleeve travel mm	: 8.65	+ position degree : 113.0 + tolerance degree : + 4.0
Tolerance mm	: + 0.25	RATED SPEED
Rated speed rpm guide sleeve	: 885	rack travel mm : 12.20
travel mm	: 5.01	+ Rated speed rpm : 1345
Tolerance mm	: +- 0.25	+
Rated speed rpm guide sleeve	: 355	+ rack travel mm : 4.00 + Rated speed rpm : 1465
travel mm Tolerance mm	: 1.96 : +- 0.25	Tolerance 1/min : +- 15
Rated speed rpm guide sleeve	: 405	+ rack travel mm : 0.50 + Tolerance mm : +- 0.50 + Rated speed rpm : 1550
travel mm Tolerance mm	: 2.33 : +- 0.25	+
Rated speed rpm guide sleeve	: 500	LOW IDLE
travel mm Tolerance mm	: 2.92 : +- 0.25	control lever
Rated speed rpm guide sleeve	: 1610	position degree : 79.0 tolerance degree : + 4.0
travel mm Tolerance mm	: 11.50 : +- 0.50	Testing:

Rated speed rpm rack travel mm	: 300 : 6.50	<u> </u>
Tolerance mm	· + 0.10	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 200	Aneroid pressure
CRT mm min.	: > 8.00	+ hPa : 700 + Rated speed rpm : 600
TORQUE CONTROL		Del. quantity + cm3/1000 strokes : 89.0 Tolerance
		+ cm3/1000 strokes : +- 1.5
Rated speed rpm rack travel mm Tolerance mm	: 13.25	+ Check tolerance + cm3/1000s. : +- 4.0 + Spreed
		+ Tolerance
Rated speed rpm rack travel mm	: 600 : 13.25	+ cm3/1000 strokes : 5.0 + Check tolerance
rack travel mm Tolerance mm	: + 0.10	cm3/1000s. : 7.0
		Aneroid pressure
ANEROID/ALTITUDE COMPENSATOR TEST		+ hPa : - + Rated speed rpm : 500
		+ Del. quantity
SETTING		+ cm3/1000 strokes : 36.0 + Tolerance
Destruct among them	. 500	cm3/1000 strokes : + 1.0
Rated speed rpm Pressure hPa	: 700	+ Check tolerance + cm3/1000s. : + 3.0
rack travel mm	: 13.25	+
Tolerance mm MEASUREMENT	: +- 0.05	BREAKAWAY
		Ţ
Pressure hPa Rated speed rpm	: - : 500	+ Rack travel in mm : 12.20 + Rated speed rpm : 1345
rack travel mm	; 10.15	Tolerance 1/min : +- 5
Tolerance mm	: +- 0.05	‡
Rated speed rpm	: 500	STARTING FUEL DELIVERY
Pressure hPa rack travel mm	: 400 : 12.70	+ Rated speed rpm : 100
Tolerance mm	: + 0.10	+ Del. quantity
Pressure hPa	: 200	+ cm3/1000 strokes : 90.0 + Tolerance
rack travel mm	: 11.00	+ cm3/1000 strokes : +- 5.0
Tolerance mm	: + 0.10	+ Check tolerance + cm3/1000s. : + 8.0
TART CUT-OUT		
Rated speed rpm	: > 100	<u> </u>
ated speed rpm	: < 200	LOW IDLE
heck		Rated speed rpm : 300
speed 1/min Check	: > 80	+ rack travel mm : 6.50 + Tolerance mm : +- 0.20
speed 1/min	: < 230	+ Del. quantity
		cm3/1000 strokes : 12.0

Tolerance cm3/1000 strokes	: +-	2.0
Check tolerance cm3/1000s. Spreed	: +-	4.5
Tolerance	_	7 5
cm3/1000 strokes Check tolerance	:	3.5
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 02.02.96 Edition Test oil : ISO 4113

Combination No. : 0 403 456 118A

Injection pump

Pump designation : PES6MW100/321RS1201

EP type number : 0 413 406 190

Governor

Governer design. : RQV250...1200MW83-3

Governer no. : 0 420 083 280

Cust. part No. : 3-7530

Customer-spec. information

Customer : MAN

Motor : D 0826 LOH 12

Power KW : 140.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C · + 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 600

x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.55 : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: + 0.50 Tolerance

Check

tolerance °NW : +- 0.75

Start of delivery mark

Barrel no. :

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 11.00

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 110.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.

: +- 3.0

Spreed

Tolerance + cm3/1000 strokes : 3.5	Tolerance mm : +- 2.50
Check tolerance cm3/1000s. : 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 250	Rated speed rpm : 700 Aneroid pressure hPa : 800
Rack travel in mm : 5.50 Tolerance mm : + 0.20	Del. quantity cm3/1000 strokes : 110.0
Del. quantity cm3/1000 strokes : 18.0 Tolerance	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes : + 2.0 + Check tolerance	cm3/1000s. : + 3.0 Spreed
cm3/1000s. : + 4.5	Tolerance cm3/1000 strokes : 3.5
Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000s. : 6.0
Check tolerance cm3/1000s. : 5.5	
(B) SETTING OF INJECTION PUMP	CONTROL LEVER
WITH GOVERNOR	control lever position degree : 299.0 tolerance degree : +- 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 250 guide sleeve	rack travel mm : 9.85
travel mm : 1.11 Tolerance mm : + 0.20	Rated speed rpm : 1253 Tolerance 1/min : +- 8
Rated speed rpm : 1261 guide sleeve	rack travel mm : 4.00 Rated speed rpm : 1330
travel mm : 10.59 Tolerance mm : + 0.15	Tolerance 1/min : +- 15
Rated speed rpm : 812 + guide sleeve +	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1400
travel mm : 5.87 Tolerance mm : + 0.25	
Rated speed rpm : 450 guide sleeve	LOW IDLE
travel mm : 3.22 Tolerance mm : +- 0.25	control lever position degree : 253.0
Rated speed rpm : 1460 quide sleeve	tolerance degree : + 4.0
travel mm : 13.50 Tolerance mm : + 0.50	Testing:
GUIDE SLEEVE POSITION	Rated speed rpm : 250 rack travel mm : 5.50 Tolerance mm : + 0.10
Rated speed rpm : 1370	Rated speed rpm : 100
Rack travel in mm: 10.00	CRT mm min. : > 6.00

		†
TORQUE CONTROL		Aneroid pressure + hPa : 800 + Rated speed rpm : 1000
Rated speed rpm	: 700	+ Del. quantity
rack travel mm Tolerance mm		cm3/1000 strokes : 118.0 Tolerance
rocerance mn	; +- 0.05	+ cm3/1000 strokes : + 1.5
Rated speed rpm	: 1200	† Check tolerance
rack travel mm Tolerance mm	: 10.85	+ cm3/1000s. : +- 4.0
loterance mm	: +- 0.10	Aneroid pressure
Rated speed rpm	: 1000	+ hPa : -
rack travel mm	: 10.90	Rated speed rpm : 500
Tolerance mm	: +- 0.10	→ Del. quantity → cm3/1000 strokes : 75.0
	·	Tolerance
ANEROID/ALTITUDE		+ cm3/1000 strokes : + 1.0
COMPENSATOR TEST		+ Check tolerance
		+ cm3/1000s. : + 3.0
SETTING		
~	500	BREAKAWAY
Rated speed rpm	: 500 : 800	1
Pressure hPa rack travel mm Tolerance mm	: 11.00	Rack travel in mm: 9.85
Tolerance mm	: +- 0.05	Rated speed rpm : 1253
		† Tolerance 1/min : + 8
MEASUREMENT		<u> </u>
Pressure hPa	: -	
Rated speed rpm		+ STARTING FUEL DELIVERY
rack travel mm Tolerance mm	: 10.05 : +- 0.05	+ Rated speed rpm : 100
TOTEL ALICE HAIL	. +- 0.05	Del. quantity
Rated speed rpm	: 500	+ cm3/1000 strokes : 70.0
D L.D.	. 450	+ Tolerance
Pressure hPa rack travel mm	: 150 : 10.35	+ cm3/1000 strokes : + 10.0 + Check tolerance
Tolerance mm	: + 0.15	+ cm3/1000s. : +- 13.0
		+
		‡
FUEL DELIVERY CHA	ARACTERISTICS	LOW IDLE
Aneroid pressure		Rated speed rpm : 250
hPa	: 800	+ rack travel mm : 5.50
Rated speed rpm	: 1200	+ Tolerance mm : + 0.20
Del. quantity cm3/1000 strokes	: 117.0	+ Del. quantity + cm3/1000 strokes : 18.0
Tolerance		Tolerance
cm3/1000 strokes	: + 1.5	+ cm3/1000 strokes : +- 2.0
Check tolerance		+ Check tolerance + cm3/1000s. : +- 4.5
cm3/1000s. Spreed	: +- 4.0	+ Cm3/1000s. : - 4.3 + Spreed
Tolerance		+ Tolerance
cm3/1000 strokes	: 5.0	+ cm3/1000 strokes : 3.5
Check tolerance	: 7.0	Check tolerance
cm3/1000s.	. 7.0	T (1110/10000) . 3.3

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 05.02.96 Test oil : ISO 4113

Combination No. : 0 403 476 120

Injection pump

Pump designation : PES6MW100/720RS1131

: -1

EP type number : 0 413 406 165

Governor

Governer design. : RSV350...750MW0A336

: -6

: 0 420 085 198 Governer no.

Cust. part No. :

Customer-spec. information Customer : MB-NFZ : OM 366 LA Motor Power KW : 87.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : ← 2.0

: 1 419 992 198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar : 208.5 Tolerance bar

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter:

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.65 : +- 0.05 Tolerance mm Check

tolerance mm : ← 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 12.55

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes :

88.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.

: + 3.0

Spreed

Tolerance cm3/1000 strokes : 3.5	control lever
Check tolerance cm3/1000s. : 6.0	position degree : 77.0 tolerance degree : +- 4.0
Rated speed rpm : 350	RATED SPEED
Rack travel in mm : 5.80	rack travel mm : 1.00 Tolerance mm : +- 0.70
Tolerance mm : + 0.70 - Del. quantity -	Rated speed rpm : 850
cm3/1000 strokes : 11.0 - Tolerance -	ASSEMBLY GOVERNOR SETTING
cm3/1000 strokes : + 2.0 - Check tolerance	+ Rated speed rpm : 750 + rack travel mm : 11.50
cm3/1000s. : +- 4.5 Spreed	Rated speed rpm : 779
Tolerance - cm3/1000 strokes : 3.5 -	Tolerance 1/min : + 4 rack travel mm : 4.00
Check tolerance cm3/1000s. : 5.5	Rated speed rpm : 751
-	rack travel mm : 11.50
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 780 Tolerance 1/min : +- 4
- -	rack travel mm : 4.00
	Rated speed rpm : 752
GUIDE SLEEVE POSITION -	rack travel mm : 11.50
Rated speed rpm : 800	Rated speed rpm : 781 Tolerance 1/min : + 4
Rack travel in mm : 0.65 Tolerance mm : +- 0.35	rack travel mm : 4.00
	Rated speed rpm : 753
governor spring pre-tension	rack travel mm : 11.50
click setting x : 2.80	Rated speed rpm : 782 Tolerance 1/min : +- 4
	rack travel mm : 4.00
FULL LOAD DELIVERY AT FULL LOAD STOP	}
700	Rated speed rpm : 754
Rated speed rpm : 700 - Aneroid pressure -	rack travel mm : 11.50
hPa : -	- Rated speed rpm : 783
Del. quantity	Tolerance 1/min : + 4
cm3/1000 strokes : 88.0	- rack travel mm : 4.00
Tolerance 4.0	- Data damanda muma a 755
cm3/1000 strokes : +- 1.0	- Rated speed rpm : 755 - rack toevel mm : 11.50
Check tolerance cm3/1000s. : +- 3.0	F I GON ESSENTED INTO THE FOLIABLE SERVICES
Spreed	- Rated speed rpm : 784
Tolerance	- Tolerance 1/min : +- 4
cm3/1000 strokes : 3.5	- rack travel mm : 4.00
Check tolerance	<u>,</u>
cm3/1000s. : 6.0	- LOW IDLE
1	- FOM INFE

CONTROL LEVER

control lever position degree 67.0 tolerance degree : + 2.0 Testing: Rated speed rpm 350 rack travel mm 5.80 : +- 0.50 Tolerance mm rack travel mm 2.00 Rated speed rpm 400 Tolerance 1/min 30 Rated speed rpm 100 : > 19.00 CRT mm min. TORQUE CONTROL Rated speed rpm 700 12.55 rack travel mm : Tolerance mm : **←** 0.05 STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : 93.0 Tolerance cm3/1000 strokes : +-5.0 Check tolerance : +-cm3/1000s. 8.0 LOW IDLE Rated speed rpm 350 rack travel mm 5.80 Tolerance mm 0.70 Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance

4.5

3.5

Check tolerance cm3/1000s. : 5.5

End of test specification sheet

NO2

cm3/1000s.

cm3/1000 strokes :

Spreed Tolerance

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.11.95 Test oil : ISO 4113

Combination No. : 0 403 466 166

Injection pump

Pump designation : PES6MW100/120RS1241

EP type number : 0 413 406 240

Governor

Governer design. : RSV450...1250MWOA384

Governer no. : 0 420 085 267

Cust. part No. : 3929163

Customer-spec. information
Customer : CDC
Motor : 6 CT
Power KW : 160.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : +- 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

tside diameter :

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0

Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance °NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 8.25

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 15.00 pifference ° CS : 1.50

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 12.25
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 142.5

Tolerance cm3/1000 strokes : + 1.0	CONTROL LEUED
Check tolerance cm3/1000s. : + 4.0	control lever
Spreed +	position degree : 92,5 tolerance degree : +- 4.0
cm3/1000 strokes : 4.0	RATED SPEED
Check tolerance cm3/1000s. : 7.5	rack travel mm : 11.20 Rated speed rpm : 1315 Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes : 14.0 Tolerance	rack travel mm : 6.60 Rated speed rpm : 1390
cm3/1000 strokes : + 2.0 Check tolerance	Tolerance 1/min : +- 5
cm3/1000s. : +- 4.5 Spreed	rack travel mm : 1.00 Tolerance mm : + 0.70
Tolerance + cm3/1000 strokes : 3.5 + Check tolerance	Rated speed rpm : 1495
cm3/1000s. : 5.5	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 74.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
Rated speed rpm : 800	Rated speed rpm : 450 rack travel mm : 4.60
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Testing:
governor spring pre-tension click setting x : 3.25	Rated speed rpm : 450 rack travel mm : 5.10 Tolerance mm : +- 0.10
	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1250	CRT mm min. : > 19.00
Aneroid pressure hPa : 1200	TORQUE CONTROL
Del. quantity cm3/1000 strokes : 142.5	Rated speed rpm : 1250
Tolerance + 1.0 + Check tolerance + 1.0	rack travel mm : 12.25 Tolerance mm : +- 0.05
cm3/1000s. : +- 4.0 +-	ANEROID/ALTITUDE
Tolerance cm3/1000 strokes : 4.0	COMPENSATOR TEST
Check tolerance cm3/1000s. : 7.5	SETTING

Rated speed rpm : 500 Pressure hPa : 1200

MEASUREMENT

Pressure hPa : Rated speed rpm : 500
rack travel mm : 10.20
Tolerance mm : + 0.20

Rated speed rpm : 500

Pressure hPa : 800 rack travel mm : 11.50 Tolerance mm : + 0.20

Pressure hPa : 600 rack travel mm : 10.60 Tolerance mm : + 0.25

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 114.5
Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 3.0

BREAKAWAY

Rack travel in mm : 11.20
Rated speed rpm : 1315
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 171.5

Tolerance cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : \leftarrow 13.0

LOW IDLE

Del. quantity cm3/1000 strokes : 14.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s.: +-4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. 5.5

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... : 06.02.96 Edition Test oil : ISO 4113 Combination No. : 0 400 863 021 Injection pump Pump designation : PES3A95D410/3RS2905 EP type number : 0 410 893 996 Governor Governer design. : RSV325...900A1C859L Governer no. : 0 420 232 622 Cust. part No. : 0423 1593 KY Customer-spec. information Customer : KHD-DMI Motor : F3L912/913_NEU Power KW : 40.5 TEST BENCH REQUIREMENTS Inlet line : 3.1 Test oil inlet temp. °C 40 Tolerance °C : +- 2.0 Overflow valve : 1 419 992 198 Inlet press. bar : 1.5 Test nozzle holde : 0 681 343 009 assembly Opening pressure 173.5 bar Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600
REMARKS
(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values
BEGINNING OF DELIVERY
Test pressure bar : 26.0 Tolerance bar : +- 1.0
Prestroke mm : 3.00 Tolerance mm : + 0.05 Check
tolerance mm : +- 0.10
Rack travel in mm : 10.50 Tolerance mm : +- 1.50
Firing order : 1- 3- 2
Phasing : 0-120-240
BASIC SETTING
Del. quantity cm3/1000 strokes : 80.0
Tolerance cm3/1000 strokes : + 1.0
Check tolerance cm3/1000s. : +- 3.0
Spreed Tolerance cm3/1000 strokes : 3.5
Check tolerance cm3/1000s. : 8.0
Rated speed rpm : 325
Rack travel in mm : 9.50 Del. quantity
cm3/1000 strokes : 21.0 Tolerance
cm3/1000 strokes : +- 2.0

Check tolerance	+
cm3/1000s. : +- 4.5	+ rack travel mm : 0.85
Spreed	+ Tolerance mm : +- 0.55
Tolerance	+ Rated speed rpm : 1090
cm3/1000 strokes : 5.5	+
Check tolerance	rack travel mm : 4.00
cm3/1000s. : 9.0	+ Rated speed rpm : 940
(115) (0000;	T Naced speed (pill : 740
	Ţ
(D) SEETING OF INJECTION DUMP	†
(B) SETTING OF INJECTION PUMP	LOUTTE
WITH GOVERNOR	+ LOW IDLE
	†
	†
	- + control lever
GUIDE SLEEVE POSITION	+ position degree : 67.0
	+ tolerance degree : +- 4.0
Rated speed rpm : 800	+
	Setting point w/out bumper spring
Rack travel in mm : 0.50	+
Tolerance mm : + 0.20	Rated speed rpm : 325
	rack travel mm : 9.00
governor spring	1 401/ 01 400 11/11 . /.00
pre-tension	Testing:
	T resumg.
click setting x : 2.00	Data dama dama da 705
	+ Rated speed rpm : 325
	- + rack travel mm : 9.50
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance mm : + 0.10
	+
Rated speed rpm : 890	+ rack travel mm : 2.00
Aneroid pressure	+ Rated speed rpm : 430
hPa : -	+ Tolerance 1/min : + 30
Del. quantity	1
cm3/1000 strokes : 80.0	+ Rated speed rpm : 100
Tolerance	Tracea opeca (piii 1 700
cm3/1000 strokes : +- 1.0	CRT mm min. : > 19.50
Check tolerance	T CAT (MI) 11 11
	T
cm3/1000s. : +- 3.0	†
Spreed	†
Tolerance	+
cm3/1000 strokes : 3.5	+
Check tolerance	+
cm3/1000s. : 8.0	+
	+ BREAKAWAY
	+
	- 🗼
CONTROL LEVER	Rack travel in mm : 10.80
	+ Rated speed rpm : 898
control lever	Tolerance 1/min : + 5
position degree : 89.0	T TOTAL TARILLY
	Ţ
tolerance degree : +- 4.0	Ť
0.1750 00550	OTANTIALO PUED DEL TUENO
RATED SPEED	+ STARTING FUEL DELIVERY
	†
rack travel mm : 10.80	+ Rated speed rpm : 100
Rated speed rpm : 898	rack travel mm : 20.25
Tolerance 1/min : +- 5	+ Tolerance mm : + 0.75
	+ Del. quantity
rack travel mm : 4.00	- cm3/1000 strokes : 123.0
Rated speed rpm : 915	+ Tolerance
Tolerance 1/min : +- 10	+ cm3/1000 strokes : +- 7.5
rocerance minute. • 10	I CONTROL DEL CONTROL I CONTROL

Check tolerance cm3/1000s. : +- 10.0

LOW IDLE

325 Rated speed rpm 9.50 rack travel mm Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 06.02.96 Test oil : ISO 4113

Combination No. : 0 400 866 222

Injection pump

Pump designation : PES6A95D410/3RS2907 EP type number : 0 410 896 884

Governor

Governer design. : RSV325...1250A5C858L

Governer no. : 0 420 232 621

Cust. part No. : 0423 1601 KY

Customer—spec. information Customer : KHD—DMI

Motor : F6L912/913_NEU

Power KW : 81.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.00
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.35

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 76.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +-

m3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s. : 8.0

	+
Rated speed rpm : 325	RATED SPEED
Rack travel in mm : 9.50	rack travel mm : 10.35
Tolerance mm : + 0.10	Rated speed rpm : 1290
Del. quantity	+ Tolerance 1/min : +- 5
cm3/1000 strokes : 21.0	t most travel as 4 00
Tolerance cm3/1000 strokes : +- 2.0	+ rack travel mm : 4.00 + Rated speed rpm : 1330
Check tolerance	Tolerance 1/min : +- 15
cm3/1000s. : +- 4.5	+
Spreed	+ rack travel mm : 0.85
Tolerance cm3/1000 strokes : 5.5	+ Tolerance mm : +- 0.55 + Rated speed rpm : 1510
Check tolerance	T Rated Speed Phil . 1310
cm3/1000s. : 9.0	+ rack travel mm : 4.00
·	+ Rated speed rpm : 1360
(B) SETTING OF INJECTION PUMP	†
WITH GOVERNOR	
, <u> </u>	+ LOW IDLE
	+
GUIDE SLEEVE POSITION	t control lever
GOIDE SEEEVE 1 GOITTON	position degree : 67.0
Rated speed rpm : 800	+ tolerance degree : + 4.0
Dook Association was a 0.50	Cattle a maint of and home a main a
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	Setting point w/out bumper spring
Toter arice (ini)	Rated speed rpm : 325
governor spring	rack travel mm : 9.00
pre-tension	+ Tanking.
click setting x : 2.75	† Testing:
	Rated speed rpm : 325
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 9.50
Rated speed rpm : 1250	† Tolerance mm : + 0.10
Rated speed rpm : 1250 Aneroid pressure	Track travel mm : 2.00
hPa : -	+ Rated speed rpm : 494
Del. quantity	+ Tolerance 1/min : + 30
cm3/1000 strokes : 76.0	+ Rated speed rpm : 100
Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 100
Check tolerance	+ CRT mm min. : > 19.50
cm3/1000s. : +- 3.0	+
Spreed	TODOUT CONTROL
Tolerance cm3/1000 strokes : 3.5	† TORQUE CONTROL
Check tolerance	Rated speed rpm : 1250
cm3/1000s. : 8.0	+ rack travel mm : 11.35
	Tolerance mm : + 0.05
	+ Rated speed rpm : 750
CONTROL LEVER	rack travel mm : 11.35
	+ Tolerance mm : +- 0.10
control lever	†
position degree : 100.0 tolerance degree : +- 4.0	I
soferance degree 4.0	1

BREAKAWAY

Rack travel in mm : 10.35
Rated speed rpm : 1290
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.25
Tolerance mm : + 0.75
Del. quantity
cm3/1000 strokes : 123.0
Tolerance

cm3/1000 strokes : + 7.5

Check tolerance

cm3/1000s. : +- 10.0

LOW IDLE

Rated speed rpm 325 rack travel mm 9.50 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance 9.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 13.02.96

Test oil

: ISO 4113

Combination No. : 0 400 866 223

Injection pump

Pump designation : PES6A95D410/3RS2907

EP type number : 0 410 896 884

Governor

Governer design. : RSV325...900A1C859L

: 0 420 232 622 Governer no.

Cust. part No. : 0423 1602 KY

Customer-spec. information

Customer

; KHD-DMI

Motor

: F6L912/913_NEU

: 81.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

40

Tolerance °C

2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar

Test Lines : 1 680 750 014

Outside diameter :

6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : +- 1.0

3.00 Prestroke mm : + 0.05Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 890

Rack travel in mm : 11.80 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 80.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.

: +- 3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000S.

8.0

Rated speed rpm : 325	RATED SPEED
Rack travel in mm: 7.90 - Tolerance mm: + 0.10 - Del. quantity -	rack travel mm : 10.80 Rated speed rpm : 898 Tolerance 1/min : +- 5
cm3/1000 strokes : 11.5 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance	rack travel mm : 4.00 Rated speed rpm : 921 Tolerance 1/min : +- 10
<pre>cm3/1000S. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 5.5</pre>	rack travel mm : 0.85 Tolerance mm : +- 0.55 Rated speed rpm : 1090
Check tolerance cm3/1000s. 9.0	rack travel mm : 4.00 Rated speed rpm : 938
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	control lever
Rated speed rpm : 800	position degree : 68.0 tolerance degree : + 4.0
Rack travel in mm : 0.50 Tolerance mm : + 0.20	Setting point w/out bumper spring Rated speed rpm : 325
governor spring - pre-tension -	rack travel mm : 7.40
click setting x : 2.50 -	- Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 325 rack travel mm : 7.90
Rated speed rpm : 890 - Aneroid pressure - hPa : -	- rack travel mm : 2.00 - Rated speed rpm : 413 - Tolerance 1/min : + 30
Del. quantity cm3/1000 strokes : 80.0	- Rated speed rpm : 100
Tolerance cm3/1000 strokes : +- 1.0 Check tolerance	CRT mm min. : > 19.50
cm3/1000s. : +- 3.0 Spreed Tolerance -	- TORQUE CONTROL
cm3/1000 strokes : 3.5	- Rated speed rpm : 890 - rack travel mm : 11.80
cm3/1000s. : 8.0	- Tolerance mm : +- 0.05 - -
CONTROL LEVER	• • •
control lever position degree : 90.0 tolerance degree : + 4.0	- BREAKAWAY

Rack travel in mm : 10.80
Rated speed rpm : 898
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity

cm3/1000 strokes : 123.0

Tolerance

cm3/1000 strokes : +- 7.5

Check tolerance

cm3/1000s. : +- 10.0

LOW IDLE

Rated speed rpm : 325 rack travel mm : 7.90 : + 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 11.5 Tolerance cm3/1000 strokes : +- 2.0Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance 9.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 14.02.96 : ISO 4113

Combination No. : 0 400 866 224

Injection pump

Pump designation : PES6A95D410/3RS2907

EP type number : 0 410 896 884

Governor

Governer design. : RSV325...1250A5C860L

Governer no. : 0 420 232 623

Cust. part No. : 0423 1812 KY

Customer-spec. information

Customer : KHD-DMI

: F6L912/913 NEU

Motor Power KW

: 89.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

: + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

: 173.5

Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

: 3.00 Prestroke mm Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.35

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 76.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

: +- 3.0 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.

: 8.0

N15

Rated speed rpm	: 325	RATED SPEED
Rack travel in mm Tolerance mm Del. quantity		rack travel mm : 10.35 Rated speed rpm : 1295 Tolerance 1/min : +- 5
cm3/1000 strokes	: 11.5	+
Tolerance cm3/1000 strokes	: +- 2.0	rack travel mm : 4.00 Rated speed rpm : 1339
Check tolerance cm3/1000s.	: +- 4.5	Tolerance 1/min : +- 15
Spreed Tolerance		rack travel mm : 0.85 Tolerance mm : + 0.55
cm3/1000 strokes Check tolerance		Rated speed rpm : 1510
cm3/1000s.	: 9.0	rack travel mm : 4.00 Rated speed rpm : 1360
(B) SETTING OF IN	JECTION PUMP	Ţ
WITH GOVERNOR		LOW IDLE
GUIDE SLEEVE POSIT	TION	control lever
Rated speed rpm	: 800	position degree : 68.0 tolerance degree : + 4.0
Rack travel in mm Tolerance mm	: 0.50° : + 0.20	Setting point w/out bumper spring
governor spring		Rated speed rpm : 325 rack travel mm : 7.70
pre-tension click setting x	: 3.00	Testing:
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	Rated speed rpm : 325 rack travel mm : 8.20
Rated speed rpm	: 1250	Tolerance mm : +- 0.10
Aneroid pressure	· -	+ rack travel mm : 2.00 + Rated speed rpm : 473
Del. quantity cm3/1000 strokes	: 76.0	Tolerance 1/min : + 30
Tolerance cm3/1000 strokes		Rated speed rpm : 100
Check tolerance cm3/1000s.	: +- 3.0	CRT mm min. : > 19.50
Spreed Tolerance		TORQUE CONTROL
cm3/1000 strokes	: 3.5	+
Check tolerance cm3/1000s.	: 8.0	Rated speed rpm : 1250 rack travel mm : 11.35 Tolerance mm : + 0.05
CONTROL LEVER		T T
control lever		+
position degree tolerance degree	: 102.0 : +- 4.0	BREAKAWAY
	· ·	

N16

Rack travel in mm : 10.35
Rated speed rpm : 1295
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75

Del. quantity

cm3/1000 strokes : 130.0

Tolerance

cm3/1000 strokes : \leftarrow 7.5

Check tolerance

cm3/1000s. : +- 10.0

LOW IDLE

325 Rated speed rpm : 8.20 rack travel mm : : + 0.10Tolerance mm Del. quantity cm3/1000 strokes : 11.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 14.02.96 Test oil : ISO 4113

Combination No. : 0 400 866 225

Injection pump

Pump designation : PES6A95D410/3RS2907

EP type number : 0 410 896 884

Governor

Governer design. : RSV325...1250A5C861L

Governer no. : 0 420 232 624

Cust. part No. : 0423 1813 KY

Customer-spec. information Customer : KHD-DMI

Motor : F6L912/913_NEU

Power KW : 89.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : +- 1.0

: 3.00 Prestroke mm : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.35
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 76.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : **←** 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

: 8.0 cm3/1000s.

+	
Rated speed rpm : 325	RATED SPEED
Rack travel in mm: 8.20 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 11.5	rack travel mm : 10.35 Rated speed rpm : 1295 Tolerance 1/min : +- 5
Tolerance cm3/1000 strokes : +- 2.0 Check tolerance	rack travel mm : 4.00 Rated speed rpm : 1339 Tolerance 1/min : +- 15
cm3/1000s. : +- 4.5 Spreed Tolerance	rack travel mm : 0.85 Tolerance mm : +- 0.55
cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : 9.0	Rated speed rpm : 1510
cm3/1000s. : 9.0	rack travel mm : 4.00 Rated speed rpm : 1360
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	
WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	control lever position degree : 68.0
Rated speed rpm : 800	tolerance degree : +- 4.0
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Setting point w/out bumper spring
governor spring + pre-tension +	Rated speed rpm : 325 rack travel mm : 7.70
click setting x : 3.00 +	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 325 rack travel mm : 8.20 Tolerance mm : +- 0.10
Rated speed rpm : 1250 + Aneroid pressure + hPa : -	rack travel mm : 2.00 Rated speed rpm : 473
Del. quantity cm3/1000 strokes : 76.0	Tolerance 1/min : + 30
Tolerance tm3/1000 strokes : + 1.0	Rated speed rpm : 100
Check tolerance cm3/1000s. : + 3.0	CRT mm min. : > 19.50
Spreed + Tolerance + cm3/1000 strokes : 3.5	TORQUE CONTROL
Check tolerance cm3/1000s. : 8.0	Rated speed rpm : 1250 rack travel mm : 11.35 Tolerance mm : + 0.05
CONTROL LEVER	
control lever position degree : 102.0 tolerance degree : + 4.0	BREAKAWAY

Rack travel in mm: 10.35 Rated speed rpm: 1295 Tolerance 1/min: +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity

cm3/1000 strokes : 130.0

Tolerance

cm3/1000 strokes : + 7.5

Check tolerance

cm3/1000s. : + 10.0

LOW TOLE

Rated speed rpm 325 rack travel mm 8.20 Tolerance mm : + 0.10Del. quantity cm3/1000 strokes : 11.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance 5.5 cm3/1000 strokes : Check tolerance 9.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 31.01.96 Test oil : ISO 4113

Combination No. : 0 402 076 781

Injection pump

Pump designation : PES6P12OA72ORS3352 EP type number : 0 412 026 780

Governor

Governer design. : RSV650...1100P2A599

: -2

Governer no. : 0 421 833 491

Cust. part No. : RE62646

Customer—spec. information
Customer : DEERE
Motor : 6081HZ003
Power KW : 170.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

+

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance °NW : + 0.75

Start of delivery mark

*NW after s.o.d. : 9.25 Tolerance : + 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 14.00 Difference ° CS : 2.50

BASIC SETTING

Rated speed rpm : 1100 +	Tolerance cm3/1000 strokes : +- 1.0
Rack travel in mm : 11.15 Tolerance mm : + 0.05	Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance
Del. quantity cm3/1000 strokes : 126.0	cm3/1000 strokes : 4.0 Check tolerance
Tolerance cm3/1000 strokes : + 1.0	cm3/1000s. : 6.5
Check tolerance	CONTROL LEVER
cm3/1000s. : + 3.0	control lever
Spreed Tolerance cm3/1000 strokes : 4.0	position degree : 97.0 tolerance degree : +- 4.0
Check tolerance	RATED SPEED
cm3/1000s. : 6.5	rack travel mm : 10.10 Rated speed rpm : 1160 Tolerance 1/min : +- 5
Del. quantity + cm3/1000 strokes : 22.5 + Tolerance +	rack travel mm : 4.00
cm3/1000 strokes : + 3.0 + Check tolerance	Rated speed rpm : 1215 Tolerance 1/min : + 5
cm3/1000s. : + 5.0	rack travel mm : 0.85
Tolerance + cm3/1000 strokes : 6.0 +	Tolerance mm : +- 0.55 Rated speed rpm : 1300
Check tolerance cm3/1000s. : 8.0	rack travel mm : 4.00 Rated speed rpm : 1215
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	
1	LOW IDLE
GUIDE SLEEVE POSITION	control lever
Rated speed rpm : 800	position degree : 80.0 tolerance degree : +- 4.0
Rack travel in mm: 0.50 + Tolerance mm: +- 0.20 +	Setting point w/out bumper spring
governor spring	Rated speed rpm : 650 rack travel mm : 4.65
pre-tension click setting x : 3.50	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 650 rack travel mm : 5.15
Rated speed rpm : 1100	Tolerance mm : +- 0.10 Rated speed rpm : 100
Aneroid pressure hPa : 1100	, , ,
Del. quantity cm3/1000 strokes : 126.0	CRT mm min. : > 19.00
т	

TORQUE CONTROL

1100 Rated speed rpm 11.15 rack travel mm : +- 0.05 Tolerance mm

700 Rated speed rpm 12.25 rack travel mm : + 0.10Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 Pressure hPa 1100

MEASUREMENT

Pressure hPa Rated speed rpm 500 rack travel mm 10.15 Tolerance mm : + - 0.20

Rated speed rpm : 500

Pressure hPa 670 11.70 rack travel mm : +- 0.20 Tolerance mm

390 Pressure hPa 10.70 rack travel mm : + 0.05Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1100 hPa 700 Rated speed rpm Del. quantity

153.5 cm3/1000 strokes :

Tolerance

cm3/1000 strokes : +-2.0 Check tolerance

4.0

cm3/1000s.

Aneroid pressure

hPa 500 Rated speed rpm

Del. quantity

cm3/1000 strokes : 103.0 Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.0

BREAKAWAY

Rack travel in mm : 10.10 Rated speed rpm : 1160 Tolerance 1/min : +-

STARTING FUEL DELIVERY

100 Rated speed rom rack travel mm 20.50 : +- 0.50Tolerance mm Del. quantity

cm3/1000 strokes : 105.0

Tolerance

cm3/1000 strokes : + 20.0

Check tolerance

cm3/1000s. : +- 25.0

LOW IDLE

Del. quantity cm3/1000 strokes : 22.5 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 5.0 : +-Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 12.02.96 Test oil : ISO 4113

Combination No. : 0 402 736 845

Injection pump

Pump designation : PES6P12OA12ORS7286 EP type number : 0 412 726 894

Governor

Governer design. : RQV350...1100PA964

: -20K

Governer no. : 0 421 815 352

Cust. part No. : 3922425

Customer—spec. information Customer : CDC Motor : 6CTA-A Power KW : 224.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.50

Check

tolerance "NW : + 0.75

Start of delivery blocking

°NW after s.o.d. : 6.25 Tolerance : + 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 15.25
Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 243.5

_ 1

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 4.0

Chrond	1
Spreed Tolerance	T Testing:
cm3/1000 strokes : 5.0	+
	+ Rated speed rpm : 350
Check tolerance cm3/1000s. : 9.0	rack travel mm : 6.60 Tolerance mm : + 0.20
cm3/1000s. : 9.0	+ Toterance mm : + U.2U
	Rated speed rpm : 275
(B) SETTING OF INJECTION PUMP	+
WITH GOVERNOR	+ CRT mm min. :> 7.80
•	+ Rated speed rpm : 425
	+ Rated speed (pill : 423
FULL LOAD DELIVERY AT FULL LOAD STOP	
4400	+ TORQUE CONTROL
Rated speed rpm : 1100	Total aread non . 1100
Aneroid pressure hPa : 1200	Rated speed rpm : 1100 - rack travel mm : 15.25 - Tolerance mm : +- 0.05
Del. quantity	Tolerance mm : +- 0.05
cm3/1000 strokes : 243.5	10 cci di loc imii
Tolerance -	Rated speed rpm : 650
cm3/1000 strokes : +- 1.0	+ rack travel mm : 13.40
	Tolerance mm : +- 0.20
Check tolerance cm3/1000s. : +- 4.0 cm3/1000s.	+
op, cca	Rated speed rpm : 1200_
Tolerance	rack travel mm : 14.70
cm3/1000 strokes : 5.0	Tolerance mm : +- 0.10
Check tolerance - cm3/1000S. : 9.0	Dotted aread pure 4 750
cm3/1000s. : 9.0	Rated speed rpm : 750 rack travel mm : 13.70 Tolerance mm : +- 0.20
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	T TOTAL TRAIT
CONTROL LEVER	
	ANEROID/ALTITUDE
control lever	COMPENSATOR TEST
position degree : 119.0	†
tolerance degree : + 6.0	CETTANG
RATED SPEED -	SETTING
RATED SPEED	Rated speed rpm : 1100
rack travel mm : 13.60	Pressure hPa : 1200
Rated speed rpm : 1255 -	rack travel mm : 15.25
Tolerance 1/min : +- 15	Tolerance mm : + 0.05
-	+
rack travel mm : 4.00 -	+ MEASUREMENT
Rated speed rpm : 1400	t
Tolerance 1/min : + 5	Pressure hPa : -
	Rated speed rpm : 1100
rack travel mm : 0.50 - Tolerance mm : + 0.50 -	rack travel mm : 9.20
Tolerance mm : + 0.50 - Rated speed rpm : 1500 -	Tolerance mm : + 0.20
kated speed rpm : 1900	Rated speed rpm : 1100
-	- Adda opea (piii) (100
	Pressure hPa : 715
LOW IDLE	rack travel mm : 13.50
÷	Tolerance mm : + 0.20
	<u></u>
control lever	Pressure hPa : 335
position degree : 71.0	f rack travel mm : 10.60
tolerance degree : + 6.0	Tolerance mm : +- 0.05

START CUT-OUT Rated speed rpm 100 Rated speed rpm 290 Check speed 1/min 80 ; > Check speed 1/min 300 : < FUEL DELIVERY CHARACTERISTICS Aneroid pressure 1200 hPa 750 Rated speed rpm Del. quantity 211.5 cm3/1000 strokes : Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance 12.0 cm3/1000s. Aneroid pressure hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 80.0 Tolerance 2.0 cm3/1000 strokes : → Check tolerance cm3/1000s. 4.0 **BREAKAWAY** Rack travel in mm: 13.60 Rated speed rpm Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 11.50 rack travel mm : + 0.50Tolerance mm Del. quantity 180.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +- 20.0

Check tolerance cm3/1000s. : +- 25.0